

Environmental Assessment for HUD-funded Proposals

*Recommended format per 24 CFR 58.36, revised March 2005
[Previously recommended EA formats are obsolete].*



Project Identification: Proyecto Ensueño
 State Road PR-844, Km. 4
 Cupey Ward, San Juan, P.R.

Preparer: Mauricio Velez, P.E.
 PRABA, LLC

Responsible Entity: Puerto Rico Department of Housing

Month/Year: April 2022

Environmental Assessment

Responsible Entity: Puerto Rico Department of Housing
[24 CFR 58.2(a)(7)]

Certifying Officer: Sally Z. Acevedo Cosme
[24 CFR 58.2(a)(2)]
Pedro de León Rodriguez
Maria T. Torres Bregón
Angel López Guzmán
Ivelisse Lorenzo Torres

Project Name: Proyecto Ensueño

Project Location: State Road PR-844, Km. 4
Cupey Ward, San Juan, P.R.

Estimated Total Project Cost: \$50,122,269.00

CDBG-DR:	\$31,942,346.00
B-17-DM-72-0001:	\$0
B-18-DP-72-0001:	\$31,942,346.00
Other Sources:	\$18,179,923.00

Grant Recipient: Puerto Rico Housing Finance Authority
[24 CFR 58.2(a)(5)]

Recipient Address: 606 Barbosa Avenue,
San Juan, PR 00918

Project Representative: Sr. Ernesto Rodriguez Alzugaray
Eng. Carlos O. Gonzalez Sanchez

Telephone Number: 787-345-6464

Conditions for Approval: [24 CFR 58.40(d), 40 CFR 1505.2(c)] (List all mitigation measures adopted by the responsible entity to eliminate or minimize adverse environmental impacts. These conditions must be included in project contracts and other relevant documents as requirements).

The conditions for approval and mitigation measures to be adopted through the construction of the project are specified in the supporting documents attached to this report:

1. Permits

- a. Ensure non-expired permits prior to construction commencement. These include:
 - i. Construction Permit
 - ii. General Consolidated Permit
 - iii. General Permit- National Pollutant Discharge Elimination System (NPDES) in compliance with EPA
 - iv. Incidental Permit
 - v. AEE Endorsed Plan Set, Letter and Project Evaluation and Point of Connection Approval
 - vi. AAA Endorsed Plan Set, Letter and Project Evaluation and Point of Connection Approval
 - vii. DTOP Regulatory Permit
 - viii. ICP Endorsements
 - ix. State Historic Preservation Office
 - x. No Flood Certification
 - xi. Certificate of Consistency by the State Coastal Management Program
 - xii. If the cutting of trees is necessary, a tree cutting, pruning, transplanting, and planting authorization (ACP) in accordance with chapter 47 cutting, pruning and afforestation of the joint regulation of permits for construction works and land use must be applied for and obtained.
 - xiii. If a Laundry is installed, corresponding permits for compliance with Rules 108 (Installation of Control Equipment) and 4040 (Fugitive Emissions) of the Regulation Number 5300 of August 28, 1995 must be obtained.
 - xiv. Consult EPA for management of storm water to confirm if a NPDES permit is necessary.
 - xv. The trucks transporting the waste during construction must possess the Permit to Operate Services of Recollection or Transportation of Non-Dangerous Solid Waste (DS-3 Permit, DRNA/JCA).
2. Compliance Measures
 - a. Storage, management and disposition of waste materials must be executed in compliance with the “Reglamento para el Manejo de los Desperdicios Sólidos No peligrosos del DRNA/JCA”.
 - b. Confirm all transport of dredged material and/or used waters is executed with authorization from the “Area de Control de Contaminación de Terrenos del DRNA/JCA”.

- c. Compliance with noise ordinance as established in the “Reglamento para el Control de la Contaminación por Ruido del DRNA/JCA”.
 - d. Present to the DRNA an emergency plan in compliance with the “Reglamento de Estándares de Calidad de Agua (RECA)” in order to prevent and/or control diesel spills.
 - e. Implement and comply with a:
 - i. CES Plan
 - ii. Storm Water Pollution Prevention Plan (SWPPP)
 - iii. Recycling Plan & Quarterly Recycling Report of the Generated Materials during the Construction Work Phase (if the Municipality is responsible for this work, Compromise Evidence from the Municipality must be submitted).
 - iv. Drawings with the localization of the recycling area inside the Project must be submitted.
 - f. Compliance with Green Permit pre-qualification requirements as a measure to obtain Green Certification.
 - g. Project must comply with DRNA rules and regulations.
 - h. Project must comply with the Code of Federal Regulations §51.104 Special requirements for normally unacceptable noise zones.
 - i. Project must follow the recommendations of the Soil Study for the project.
 - j. Project must comply with the Regulations for the Control and Prevention of Luminic Contamination.
 - k. A reforestation program using native species, which, in addition to helping to minimize erosion, benefits wildlife, must be established.
 - l. Project must comply with noise mitigation requirements as stated in the Noise Compliance Certification.
3. Construction
- a. The toe of the construction fill maintains a distance of at least 10 meters from the top of bank of the creek to allow for natural channel migration and minimize any future need for bank stabilization due to encroachment on the development.
 - b. Contractor must stop any and all construction work if archaeological deposits and/or elements of historical value are encountered during any phase of the construction. Contractor must inform the SHPO, ICPR and Contracting Officer within 24 hours of the finding.
 - c. If a Puerto Rican boa is found at the project site, in or on any compartment of the machinery used in the project, or inside debris piles, work activities shall stop until boas move away on their own. If boas need to be moved out of harm’s way, the Project must contact the State Agency biologists or Rangers for the appropriate capture and relocation of the animal.
 - d. Contractor must stop any and all construction work If any above and/or below ground water sources are encountered during the construction effort and shall notify DRNA immediately upon such findings.

Breakdown of Fund Sources

Tax Credit Capital	Permanent Loan	Other Sources	CDBG-DR	Total Cost
\$18,179,923.00	\$0	\$0	\$31,942,346.00	\$50,122,269.00

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1. Acronym and Abbreviations

Acronym	Meaning
SHPO	State Historic Preservation Office
FEMA	Federal Emergency Management Agency
EPA	Environmental Protection Agency
JCA	Puerto Rico Environmental Quality Board (Junta de Calidad Ambiental). Now DRNA, Ley 171-2018.
CBRS	Coastal Barrier Resource System
CDBG-DR	Community Development Block Grant- Disaster Recovery
CES Plan	Erosion Control and Sediment Containment Plan (Plan para el Control de la erosión y prevención de la sedimentación)
DRNA	Department of Natural Resources (Departamento de Recursos Naturales)
LBP	Lead Based Paints
AEE	Puerto Rico Electric Power Authority (Autoridad de Energía Eléctrica)
AAA	Puerto Rico Water and Sewage Authority (Autoridad de Acueductos y Alcantarillados)
ACM	Asbestos Containing Materials
ICPR	Institute of Puertorican Culture (Instituto de Cultura Puertorriqueña)
EA	Environmental Assessment (Evaluación Ambiental)
PRDOH	Puerto Rico Department of Housing (Departamento de la Vivienda)
SSA	Sole Source Aquifers
USFWS	United States Fish and Wildlife Service
ADS	Solid Waste Authority (Autoridad de Desperdicios Sólidos). Now DRNA, Ley 171-2018

2. Project Description

a. Statement of Purpose and Need for the Proposal: [40 CFR 1508.9(b)]

Puerto Rico is short of suitable affordable housing for numerous low-income populations including, but not limited to, single-headed households. Throughout the past decade PR has been wrought by an economic recession that has been further tainted by hikes in construction costs, the implementation of new taxes, the degradation of the islands credit rating and new fiscal controls over government spending. Furthermore, Hurricane Maria stormed through the island in September of 2017 damaging hundreds of thousands of homes along the way. All together, these conditions have led to a shortage in affordable housing and present powerful obstacles to low-income families in their search for safe, sanitary and secure homes. The purpose of this endeavor is assist in providing suitable affordable housing to low income single-headed households in San Juan, P.R.

b. Description of the Proposal: Include all contemplated actions which logically are either geographically or functionally a composite part of the project, regardless of the source of funding. [24 CFR 58.32, 40 CFR 1508.25]

Ensueño will consist of 89 single family units, distributed among 3-bedroom units, and each with 2-bathroom, kitchen and living-room area. Twelve percent of the units will be designed for mobility impairment, and three percent of the units for visual/hearing impaired. The development will comply with the accessibility requirements of the Fair Housing Act and wherever applicable 2010 ADA standards, and UFAS.

The units will have an average gross living area of 1,422 square feet. Each unit will include a water cistern and solar panels with batteries. Finishes will be typical for the type of houses, including terrazzo tile floors in the bathrooms, ceramic tiled wainscot bathrooms, PVC kitchen panels, interior doors will be hollow wood, and exterior will be aluminum. Moreover, all the units and common areas will be equipped with energy star light fixtures and appliances such as stove/oven, and refrigerator. The units will also have smoke detectors, solar water heater, bathroom equipment including accessories. All units and common areas will be equipped with water sense plumbing fixtures for water conservation. The Project's amenities will include a perimeter fence, controlled gate/access, parking spaces, multipurpose center and public restroom, administration facilities, a central courtyard area for passive recreation, and an equipped playground.

The subject site is located on a Specially Protected Rustic Soil (SREP) zoning district with some areas designated as Interior Forest (B-1) zoning district. This zoning permits the intended use of the property. The subject property is located in an area Zone X, outside the 1% annual chance of flood area as per FEMA Emergency Flood Map No. 72000C0735H with an effective date as of April 19, 2005. Major infrastructures are available at the proposed site. The Puerto Rico

Electrical Power Authority (PREPA) provides electrical power to the subject's immediate neighborhood. The Puerto Rico Aqueducts and Sewers Authority (PRASA) provide potable water to the area, and the Puerto Rico Telephone Company provides telephone services. There are no other utilities available at the subject property. The proposed site vicinity has the typical and necessary government services available, including fire department and police station, postal service, garbage pick-up, among others. Public and private transportation is adequate and is available by taxis, buses and mini-vans at reasonable fares.

3. Findings: [58.40(g)]

X

Finding of No Significant Impact

(The project will not result in a significant impact on the quality of the human environment)

—

Finding of Significant Impact

(The project may significantly affect the quality of the human environment)

Preparer Signature:



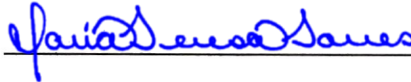
Date:

April 25, 2022

Name/Title/Agency:

Mauricio Velez, P.E.
PRABA, LLC

RE Approving Official Signature:



Date:

May 2, 2022

Name/Title/Agency:

Puerto Rico Department of Housing (PRDOH)

4. Statutory Checklist [24CFR §58.5]

Record the determinations made regarding each listed statute, executive order or regulation. Provide appropriate source documentation. Note reviews or consultations completed as well as any applicable permits or approvals obtained or required. Note dates of contact or page references. Provide compliance or consistency documentation. Attach additional material as appropriate. Note conditions, attenuation or mitigation measures required.

Factors	Determination and Compliance Documentation
<p>Historic Preservation [36 CFR 800]</p>	<p>No historic properties were or will be affected according to the December 9, 2020 letter by SHPO.</p> <p>The Historical Building Heritage Program and the Archeology and Ethnohistory Program of the Institute of Puerto Rican Culture provided no objection towards the construction of the project based on the submitted and evaluated documents. The endorsements from the Program of Archaeology and Ethnohistory & Office of Historical Heritage of the Institute of Puerto Rican Culture of ICP were obtained on October 12, 2018 and October 19, 2018 respectively.</p> <p>See: Exhibit A - SHPO Determination Exhibit B - ICPR Letter Exhibit C - Archaeology Study</p>
<p>Floodplain Management [24 CFR 55, Executive Order 11988]</p>	<p>The subject property is located in a Zone X, outside the 1% annual chance of flood area as per FEMA Emergency Flood Map No. 72000C0735H with an effective date as of April 19, 2005. The Zone X is area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X may have pond prone areas and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.</p> <p>The Subject Site is assumed to be free of adverse floodable conditions that might affect its intended development, and no liability or responsibility is assumed in this respect.</p> <p>All Municipalities of Puerto Rico participate in the National Flood Insurance Program and are currently in good standing with the agency.</p> <p>See: Exhibit D –Environmental Site Assessment Phase I Exhibit E – FIRM (Flood Insurance Rate Map) Exhibit F – Hydrologic & Hydraulic Study – Non-Flood Certification</p>
<p>Wetlands Protection [Executive Order 11990]</p>	<p>No evidence of wetlands was noted on the subject property. The vicinity surrounding the Subject Property was evaluated using U.S. Fish and Wildlife Service Natural Wetland Inventory. A copy of the National Wetland Inventory for the subject property vicinity issued by the U.S. Fish and Wildlife Service is included in this report. The project site is not located on any riparian nor wetland. Furthermore, a permit won't be required as per Section 404 of the Clean Water Act as the project will not require the discharge of dredged or fill material</p>

	<p>into wetlands</p> <p>See: Exhibit G – National Wetlands Inventory Map Exhibit D – Environmental Site Assessment Phase I</p>
<p>Coastal Zone Management Act [Sections 307(c), (d)]</p>	<p>Puerto Rico’s coastal zone generally extends 1,000 meters (one kilometer) inland. The municipality of San Juan is bordered on the north by the Atlantic Ocean, on the south by the municipality of Caguas on the east by the municipalities of Carolina and Trujillo Alto, and to the west by the municipality of Guaynabo. Because of its location on the coast, the municipality is part of the northern coastal plain region. The project site is located approximately 5 miles South of the Northern Coast of Puerto Rico, which pertains to the Atlantic Ocean. There are no anticipated adverse effects due to the project’s development. As this is a new construction outside the limits of a Coastal Zone.</p> <p>See: Exhibit H1 – Coastal Zone Map Exhibit D – Environmental Site Assessment Phase I</p>
<p>Sole Source Aquifers [40 CFR 149]</p>	<p>Puerto Rico is included in a sole-source aquifer region designated as Region II of the USA EPA. The project is not connected to a direct potable water line which provides water from a designated sole-source aquifer nor is it located within a sole source aquifer watershed.</p> <p>See: Exhibit I – USGS Hydrogeologic Map of Puerto Rico Exhibit D – Environmental Site Assessment Phase I</p>
<p>Endangered Species Act [50 CFR 402]</p>	<p>The proposed project site lies within the range of the Puerto Rican boa (<i>Chilabothrus inornatus</i>, originally listed as <i>Epicrates inornatus</i>).</p> <p>If a Puerto Rican boa is found at the project site, in or on any compartment of the machinery used in the project, or inside debris piles, work activities shall stop until boas move away on their own. If boas need to be moved out of harm’s way, the Applicant must contact the State Agency biologists or Rangers for the appropriate capture and relocation of the animal.</p> <p>See: Exhibit J – USFWS Technical Assistance Letter- Endangered Species and Ecology Exhibit D – Environmental Site Assessment Phase I</p>
<p>Wild and Scenic Rivers Act [Sections 7(b), (c)]</p>	<p>Puerto Rico has approximately 5,385 river miles. Only 8.9 miles of three rivers are designated as wild & scenic. There are no surrounding rivers that qualify as wild and scenic rivers. The closest wild and scenic river (Rio Mameyes) is located in the Yunque Rainforest, more than 17 miles east of the project site. The project poses no harm to this river.</p> <p>See: Exhibit D –Environmental Site Assessment Phase I Exhibit K - Wild & Scenic Rivers Map</p>

<p>Air Quality [Clean Air Act, Sections 176(c) and (d), and 40 CFR 6, 51, 93]</p>	<p>The Municipality of San Juan is currently listed as a nonattainment and maintenance area for Sulphur Dioxide (2010). The contractor must implement mitigation measures that include but are not limited to, a CES Plan to be developed and maintained throughout the duration of the construction.</p> <p>A General Consolidated Permit from the DRNA is required.</p> <p>See: Nonattainment Areas for Criteria Pollutants (Green Book) US EPA Exhibit D – Environmental Site Assessment Phase I Exhibit L – DECA (Division de Evaluación de Cumplimiento Ambiental) Letter, June 3, 2019 Exhibit M – DRNA/JCA (Junta de Calidad Ambiental) Letter, February 24, 2003 Exhibit N – JP (Junta de Planificación) Resolution Letter, June 26, 1996</p>
<p>Farmland Protection Policy Act [7 CFR 658]</p>	<p>The proposed use is in harmony with the surrounding developments area and does not impact agricultural projects. The project land lies within a mixed use and populated urban area in the Cupey Ward. The project is not located on or near a farmland.</p> <p>See: Exhibit O – JP (Junta de Planificacion) Resolution Letter (part G) January 12, 2000 Exhibit P – Site Aerial Imagery (USGS) and Map (USDA)</p>
<p>Environmental Justice [Executive Order 12898]</p>	<p>The proposed low-income housing development for single headed families is meant to serve the pressing need for affordable housing in San Juan’s low-income population. The Municipality of San Juan expressed their complete support in the Municipality’s Endorsement Letter.</p> <p>Noise attenuation measures will be implemented as per Exhibit S.</p> <p>The Phase I Environmental Study determined that the probability of the Site being contaminated is very low, that no substantial environmental issues were found and that no potential environmental impact issues to the Project were determined.</p> <p>See: Exhibit Q - Municipal Endorsement Letter Exhibit D – Environmental Site Assessment Phase I Exhibit R – Noise Study Exhibit S - Noise Study Certification Letter by State Engineering PSC</p>

HUD Environmental Standards

Determination and Compliance Documentation

<p>Noise Abatement and Control [24 CFR 51 B]</p>	<p>The HUD noise acceptability criterion of 65 dB for exterior of the “Ensueño” Project was normally unacceptable. In accordance with [24 CFR 51 B], a 5 dB additional attenuation is required for sites above 65 dB. In accordance with 24 CFR 51.104(b)(1), this review is performed as part of an Environmental Assessment. Therefore, no other special approvals are required in accordance with the July 2019 HUD Guidance Memo on Noise.</p> <p>Attenuation measures that will be implemented to comply to result in a minimum of 5dB reduction:</p> <ol style="list-style-type: none"> 1. Distance between the noise source and the closest housing units to be 11.77mts. 2. Construction design: The structure will be of reinforced concrete and CMU exterior walls covered with stucco. The interior walls and ceiling will also have a stucco finish. The roof will be built with reinforced concrete. 3. Installation of storm rated aluminum windows in all units. <p>See: Exhibit R – Noise Study Exhibit S - Noise Study Certification Letter by State Engineering PSC</p>
<p>Toxic/Hazardous/Radioactive Materials, Contamination, Chemicals or Gases [24 CFR 58.5(i)(2)]</p>	<p>A Phase I Environmental Site Assessment dated November 25, 2021, and in conformance with the scope and limitations of ASTM E1527-13 determined that there were no recognized environmental conditions (RECs) associated with the property usage or on the project site. No map needed due to Phase I report.</p> <p>See: Exhibit D - Environmental Site Assessment Phase I</p>
<p>Siting of HUD-Assisted Projects near Hazardous Operations [24 CFR 51 C]</p>	<p>There are no hazardous or contaminated facilities within 1/8 mile of the project and no sites with ASTs that could impact the site.</p> <p>This project will not expose either people or buildings to additional hazards.</p> <p>See: Exhibit T – Undesirable Activities Map Exhibit U– ALTA/NSPS Land Title Survey Exhibit V – Site Aerial Imagery</p>
<p>Airport Clear Zones and Accident Potential Zones [24 CFR 51 D]</p>	<p>The project site is located approximately 6.33 miles away from the Luis Munoz Marin International Airport, which is also a joint civil-military airport, and 8.35 miles away from the Isla Grande Airport.</p> <p>The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport.</p> <p>See: Exhibit W – Site Aerial Imagery (Google Maps) Exhibit T – Undesirable Activities Map</p>

5. Environmental Assessment Checklist

[Environmental Review Guide HUD CPD 782, 24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]

Evaluate the significance of the effects of the proposal on the character, features and resources of the project area. Enter relevant base data and verifiable source documentation to support the finding. Then enter the appropriate impact code from the following list to make a determination of impact. Impact Codes: (1) - No impact anticipated; (2) - Potentially beneficial; (3) - Potentially adverse; (4) - Requires mitigation; (5) - Requires project modification. Note names, dates of contact, telephone numbers and page references. Attach additional material as appropriate. Note conditions or mitigation measures required.

Land Development	Code	Source or Documentation
Conformance with Comprehensive Plans and Zoning	2	<p>This zoning permits the intended use of the property. There is no need for any changes or variances to the site/project. The Municipality of San Juan has endorsed the single-family housing development and the site has been vetted by the Junta de Planificación (Planning Board of PR).</p> <p>The Project is shovel ready and integrates strategies and activities that lead to lower construction costs. The Project has an Urbanization Permit, and other state and local permits and endorsements. There are no potential obstacles to the development of the Project. Further, the Owner does not foresee any environmental, land use, or community concerns, that may delay or negatively impact the development or operation of the Project.</p>
Compatibility and Urban Impact	2	<p>The project lies within a suburban mixed residential, light industrial and commercial structures which have adequate and immediate road access.</p> <p>The development and construction of <i>Ensueño</i> will have a direct and indirect economic impact in the Municipality; generating substantial local economic activity, including new income and jobs, and additional revenue for the local government. The proposed project is one that promotes an affordable, resistant and resilient housing project, and social enhancement. Moreover, the Project promote 3 community cohesion, beautify neighborhood, promote resource conservation, and improve the quality of life of the community. In addition, this Project represents a complement to the efforts of the state and local government, to provide families affected by Hurricanes Irma and María, and the recent earthquakes with a decent and affordable housing alternative, plus services for a better quality of life.</p>
Slope	1	<p>The project site possesses an inclined slope and will require cuts and backfill to reach desired grade preparation. These earthworks do not seem to be major and are not expected to create any adverse effect on the project site or vicinities.</p>
Erosion	1	<p>During development of the project, a potential for erosion exists. However, the contractor through strict compliance with a CES Plan, will mitigate the possibilities of erosion during the construction process.</p> <p>There is no anticipated adverse effect on erosion expected as a result of the development of this new project.</p>

Soil Suitability	1	<p>The subject site is located on a Specially Protected Rustic Soil (SREP) zoning district with some areas designated as Interior Forest (B-1) zoning district. This zoning permits the intended use of the property. However, the contractor must be in compliance with all recommendations presented in the geotechnical report.</p> <p>See: Exhibit X – Soil Study</p>
Hazards and Nuisances including Site Safety	1	<p>The project does not present any construction logistic difficulties to the contractor. However, the contractor could experience safety, hazard, or nuisances typical to construction projects. Nevertheless, the contractor must provide a safe environment, on and off-site, throughout the construction process. This includes compliance with all safety and environmental measures established by, but not limited to, OSHA, EPA, USFWS and the DRNA.</p> <p>The Phase I Environmental Study determined that the probability of the Site being contaminated is very low.</p>
Energy Consumption	1	<p>The Green Building Standard to be implemented at <i>Ensueño</i> is the local Green Building Permit. In addition, the project plans and technical specifications incorporate broadband infrastructure. Broadband infrastructure will be offered via a commercial provider.</p>

<p>Noise - Contribution to Community Noise Levels</p>	4	<p>The HUD noise acceptability criterion of 65 dB for exterior of the “Ensueño” Project was normally unacceptable and must comply with special approvals and requirements for attenuations. In accordance with [24 CFR 51 B], a 5 dB additional attenuation is required for sites above 65 dB. In accordance with 24 CFR 51.104(b)(1), this review is performed as part of an Environmental Assessment. Therefore, no other special approvals are required in accordance with the July 2019 HUD Guidance Memo on Noise.</p> <p>Attenuation measures that will be implemented to comply with [24 CFR 51 B] to meet minimum of 5dB reduction:</p> <ol style="list-style-type: none"> 1. Distance between the noise source and the closest housing units to be 11.77mts. 2. Construction design: The structure will be of reinforced concrete and CMU exterior walls covered with stucco. The interior walls and ceiling will also have a stucco finish. The roof will be built with reinforced concrete. 3. Installation of storm rated aluminum windows in all units. <p>The construction noise must be mitigated utilizing standard procedures and measures as requested by DRNA/JCA and required in the ‘Reglamento para el Control de la Contaminación por Ruido’.</p>
<p>Air Quality Effects of Ambient Air Quality on Project and Contribution to</p>	1	<p>The contractor must implement mitigation measures that include but are not limited to, a CES Plan to be developed</p>

Community Pollution Levels		and maintained throughout the duration of the construction. A General Consolidated Permit from the DRNA is required. This permit is to be expected prior to the start of construction start.
Environmental Design Visual Quality - Coherence, Diversity, Compatible Use and Scale	2	<ul style="list-style-type: none"> • Incorporates state and municipal initiative. • Promotes the Projects proposed works by leveraging public and private resources. • Promotes neighborhood and family stabilization. • Stimulates affordable, safe and decent rental housing. • Integrates innovative housing construction methods, new materials and feasible energy efficient technologies in the Project construction. <p>The surrounding environment of the proposed project serves the residential, commercial and institutional needs of the Municipality of San Juan. The architecture of the surrounding environment varies in scale and aesthetics. It is in compliance with the requirements of the Municipality's plan for the area.</p>

Socioeconomic	Code	Source or Documentation
Demographic Character Changes	2	The project will be built within a mixed-use sector of San Juan. Additional housing will contribute to the Municipalities ongoing effort to attend the demand for affordable housing as well as to attract and maintain a steady population in this district.
Displacement	2	There will be neither displacement nor adverse socioeconomic effects to the site or area.
Employment and Income Patterns	2	The project will require administrative staff and maintenance personnel, indicating the creation of new jobs. In addition, the new tenants will add to the market for the neighboring commercial facilities. Hence, potentially improving regional commerce. Also, during construction, the project will generate direct and indirect jobs.

Community Facilities and Services	Code	Source or Documentation
Educational Facilities	2	The project is surrounded by various public and private schools as well as universities such as the University of Puerto Rico and Interamerican University of PR.
Commercial Facilities	2	There are numerous small, mid-scale and large-scale mixed-use Commercial and industrial facilities throughout the urban district of San Juan, which will benefit from the new potential client base.
Health Care	2	Pharmacies, hospitals, clinics, medical offices, and CDTs are found within a 5-mile radius of the site.
Social Services	2	The project intends to fulfill the current demand for affordable housing for low-income families in San Juan. Qualified participants will receive the financial support for suitable housing within a planned community. The effort conforms to the best interest of the Municipality and its population.

Solid Waste	2	<p>Existing solid waste removal services are available to the existing surrounding commerce, neighborhood, and residential complexes.</p> <p>Recycling will be implemented and enforced as per standards set by the DRNA/ADS. A recycling plan must be submitted by the contractor to the DRNA.</p> <p>During Construction, the proponent needs to comply with the laws and regulations related to the management and disposal of solid waste and recyclable materials:</p> <ol style="list-style-type: none"> 1. Ley Núm. 70, de 18 de septiembre de 1992, Ley para la Reducción y Reciclaje de los Desperdicios Sólidos. 2. Reglamento para la Reducción, Reutilización y Reciclaje de Desperdicios Sólidos (Reglamento Núm. 6825 de 15 de junio de 2004). 3. Reglamento Conjunto de Permisos para Obras de Construcción y Usos de Terrenos (Reglamento Conjunto) de 29 de noviembre de 2010.
Waste Water	1	<p>The project will be served by the existing aqueduct infrastructure provided by the local water and sewer service entity, Autoridad de Acueductos y Alcantarillados (AAA).</p> <p>The project has been endorsed by the AAA and the Municipality.</p>
Storm Water	1	<p>The subject property is located in a Zone X, outside the 1% annual chance of flood area as per FEMA Emergency Flood Map No. 72000C0735H with an effective date as of April 19, 2005. The Zone X is area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X may have pond prone areas and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.</p> <p>The new construction should have no adverse effects on existing storm water management.</p>
Water Supply	1	<p>The project will be served by the existing aqueduct infrastructure provided by the local water and sewer service entity, Autoridad de Acueductos y Alcantarillados (AAA).</p> <p>The project has been endorsed by the AAA.</p>
Public Safety - Police	1	<p>A Police Station is located less than two miles away from the project.</p>
- Fire	1	<p>A Fire Station is located less than two miles away from the project.</p> <p>The project has been endorsed by the local Fire Department.</p>
- Emergency Medical	1	<p>A hospital and medical offices are found within a 1-mile radius of the site.</p>
Open Space and Recreation	2	<p>The San Juan Municipality is densely populated and is by far the most developed area in Puerto Rico and hosts the island's manufacturing, financial, cultural, and tourism center.</p>

		The project will be located close to public transportation, religious services, plazas, theaters, restaurants, stores, events, sports complexes and attractions. However, the project will have open spaces.
Transportation	1	This area is served by a free Municipal Trolley that connects to the bus stops of Metropolitan Bus Authority (AMA), Puerto Rico's public transportation in the metropolitan area.

Natural Features	Source or Documentation	
Water Resources	1	<p>All potable water supply services will be provided by the local water and sewer service entity, Autoridad de Acueductos y Alcantarillados (AAA).</p> <p>The project has been endorsed by this entity.</p>
Surface Water	1	<p>The selected site is not located in a floodplain. It stands within the Zone X defined as an area determined to be outside the 500-year flood by FEMA.</p>
Unique Natural Features and Agricultural Lands	1	<p>The proposed use is in harmony with the surrounding developments area and does not impact agricultural projects. The project land lies within a mixed use and populated urban area in the Cupey Ward.</p>
Vegetation and Wildlife	3	<p>The proposed project site lies within the range of the Puerto Rican boa (<i>Chilabothrus inornatus</i>, originally listed as <i>Epicrates inornatus</i>). If a Puerto Rican boa is found at the project site, in or on any compartment of the machinery used in the project, or inside debris piles, work activities shall stop until boas move away on their own. If boas need to be moved out of harm's way, the Applicant must contact the State Agency biologists or Rangers for the appropriate capture and relocation of the animal.</p>

Other Factors 24 CFR 58.6	Source or Documentation	
Flood Disaster Protection Act [Flood Insurance] [§58.6(a)]	1	<p>The selected site is not located in a floodplain. It stands within the Zone X defined as an area determined to be outside the 500-year flood by FEMA.</p> <p>No mandatory flood insurance purchase is required.</p>
Coastal Barrier Resources Act/ Coastal Barrier Improvement Act [§58.6(c)]	1	<p>The project site is outside Coastal Barrier Act / Coastal Barriers Improvements Act.</p> <p>The Coastal Barrier Resource System Map further confirms that the site is not identified as a protected area.</p> <p>See: Exhibit H2 –USFWS Coastal Barrier Resources System Map</p>
Airport Runway Clear Zone or Clear Zone Disclosure [§58.6(d)]	1	<p>The project site is located approximately 6.33 miles away from the Luis Munoz Marin International Airport, which is also a joint civil-military airport, and 8.35 miles away from the Isla Grande Airport.</p> <p>The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport.</p> <p>See: Exhibit W – Site Aerial Imagery (Google Maps)</p>
Other Factors		

6. List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]

1. National Parks Services
 - a. <https://www.nps.gov/subjects/nnlandmarks/index.htm>
2. FEMA Flood Map Service Center
 - a. <https://msc.fema.gov/portal/home>
3. The National Flood Insurance Program Community Status Book
 - a. <https://www.fema.gov/cis/PR.html>
4. Junta de Planificación de Puerto Rico.
5. National Wetlands Inventory
 - a. <https://www.fws.gov/wetlands/data/mapper.html>
6. Puerto Rico Coastal Zone Management Program
 - a. <http://drna.pr.gov/historico/oficinas/arn/recursosvivientes/costasreservasrefugios/pmzc/pmzc/pmzc2009/PMZCPR%20ingles%202009%20final.pdf>
7. Office for Coastal Zone Management
 - a. <https://coast.noaa.gov/czm/mystate/#puertorico>
8. United States Environmental Protection Agency
 - a. <https://www.epa.gov/dwssa>
 - b. <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>
 - c. <https://www3.epa.gov/airquality/greenbook/tnca.html>
 - d. https://www3.epa.gov/airquality/greenbook/anayo_pr.html
9. National Wildlife Refuge System
 - a. <https://www.fws.gov/refuges/>
 - b. <https://www.fws.gov/refuges/refugeLocatorMaps/PuertoRico.html>
 - c. https://www.fws.gov/refuges/maps/NWRS_National_Map.pdf
10. USA National Wild and Scenic Rivers
 - a. www.rivers.gov
11. Federal Aviation Administration
 - a. https://www.faa.gov/airports/planning_capacity/npia/reports/media/NPIAS-Report_2019-2023-Appendix-B.pdf
12. Google Earth
 - a. <https://earth.google.com>
13. Google Maps
 - a. <https://maps.google.com>
14. USFWS Coastal Barrier Resources System
 - a. <https://www.fws.gov/cbra>

7. Summary of Findings and Conclusions

a. Alternatives to the Proposed Action [24 CFR 58.40(e), Ref. 40 CFR 1508.9]

(Identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment of each alternative and the reasons for rejecting it.)

The Municipality is interested in residential developments for affordable housing within its urban limits. Given the character of the community within which it lies, the available infrastructure, access to principal roads and highways, and its readily accessible location, the site is perfectly suitable for the intended use.

Alternatives:

1. Building fewer units would mean a reduction in the number of apartments available for affordable housing. noise, air pollution, pollution, traffic, demand for water and electricity would be decreased proportionally. However, this is not necessarily attractive given that a reduced density would be inconsistent with the municipality's interest in providing a solution for the high demand for affordable housing.

b. No Action Alternative [24 CFR 58.40(e)]

(Discuss the benefits and adverse impacts to the human environment of not implementing the preferred alternative).

In the absence of the development, current economic trends suggest that the site would continue to be covered with vegetation without any potential use in the near future. This option would ignore the need for affordable housing to low-income single-headed households that the Municipality and local population desperately need.

8. Mitigation Measures Recommended [24 CFR 58.40(d), 40 CFR 1508.20]

(Recommend feasible ways in which the proposal or its external factors should be modified in order to minimize adverse environmental impacts and restore or enhance environmental quality.)

The conditions for approval and mitigation measures to be adopted through the construction of the project are specified in the supporting documents attached to this report:

1. Permits

- a. Ensure non-expired permits prior to construction commencement. These include:
 - i. Construction Permit
 - ii. General Consolidated Permit
 - iii. General Permit- National Pollutant Discharge Elimination System (NPDES) in compliance with EPA
 - iv. Incidental Permit
 - v. AEE Endorsed Plan Set, Letter and Project Evaluation and Point of Connection Approval
 - vi. AAA Endorsed Plan Set, Letter and Project Evaluation and Point of Connection Approval
 - vii. DTOP Regulatory Permit
 - viii. ICP Endorsements
 - ix. State Historic Preservation Office
 - x. No Flood Certification
 - xi. Certificate of Consistency by the State Coastal Management Program
 - xii. If the cutting of trees is necessary, a tree cutting, pruning, transplanting, and planting authorization (ACP) in accordance with chapter 47 cutting, pruning and afforestation of the joint regulation of permits for construction works and land use must be applied for and obtained.
 - xiii. If a Laundry is installed, corresponding permits for compliance with Rules 108 (Installation of Control Equipments) and 4040 (Fugitive Emissions) of the Regulation Number 5300 of August 28, 1995 must be obtained.
 - xiv. Consult EPA for management of storm water to confirm if a PODES permit is necessary.
 - xv. The trucks transporting the waste during construction must possess the Permit to Operate Services of Recollection or Transportation of Non-Dangerous Solid Waste (DS-3 Permit, DRNA/JCA).

2. Compliance Measures

- a. Storage, management and disposition of waste materials must be executed in compliance with the "Reglamento para el Manejo de los Desperdicios Sólidos No peligrosos del DRNA/JCA".
- b. Confirm all transport of dredged material and/or used waters is executed with authorization from the "Area de Control de Contaminación de Terrenos del DRNA/JCA".

- c. Compliance with noise ordinance as established in the “Reglamento para el Control de la Contaminación por Ruido del DRNA/JCA”.
 - d. Present to the DRNA an emergency plan in compliance with the “Reglamento de Estándares de Calidad de Agua (RECA)” in order to prevent and/or control diesel spills.
 - e. Implement and comply with a:
 - i. CES Plan
 - ii. Storm Water Pollution Prevention Plan (SWPPP)
 - iii. Recycling Plan & Quarterly Recycling Report of the Generated Materials during the Construction Work Phase (if the Municipality is responsible for this work, Compromise Evidence from the Municipality must be submitted).
 - iv. Drawings with the localization of the recycling area inside the Project must be submitted.
 - f. Compliance with Green Permit pre-qualification requirements as a measure to obtain Green Certification.
 - g. Project must comply with DRNA rules and regulations.
 - h. Project must comply with the Code of Federal Regulations §51.104 Special requirements for normally unacceptable noise zones.
 - i. Project must follow the recommendations of the Soil Study for the project.
 - j. Project must comply with the Regulations for the Control and Prevention of Luminic Contamination.
 - k. A reforestation program using native species, which, in addition to helping to minimize erosion, benefits wildlife, must be established.
 - l. Project must comply with noise mitigation requirements as stated in the Noise Compliance Certification.
3. Construction
- a. The toe of the construction fill maintains a distance of at least 10 meters from the top of bank of the creek to allow for natural channel migration and minimize any future need for bank stabilization due to encroachment on the development.
 - b. If a superficial or subterranean body of water is discovered while construction work is taking place, it must be informed to the DRNA.
 - c. Contractor must detain any and all construction work if archaeological deposits and/or elements of historical value are encountered during any phase of the construction. Contractor must inform the ICPR and Contracting Officer within 24 hours of the finding.
 - d. If a Puerto Rican boa is found at the project site, in or on any compartment of the machinery used in the project, or inside debris piles, work activities shall stop until boas move away on their own. If boas need to be moved out of harm’s way, the Project must contact the State Agency biologists or Rangers for the appropriate capture and relocation of the animal.
 - e. Contractor must detain any and all construction work If any above and/or below ground water sources are encountered during the construction effort and shall notify DRNA immediately upon such findings.

Exhibit A



GOBIERNO DE PUERTO RICO
Oficina Estatal de Conservación Histórica

December 9, 2020

Lauren Bair Poche

HORNE
10000 Perkins Rowe, Suite 610, Bldg G
Baton Rouge, LA 70810

SHPO 12-05-18-01 ENSUEÑO, PR-844, KM 3.9, CUPEY WARD, SAN JUAN,
PUERTO RICO

Dear Ms. Bair,

Our Office has received and reviewed the above referenced project in accordance with 54 U.S.C. 306108 (commonly known as Section 106 of the *National Historic Preservation Act*) and 36 CFR Part 800: *Protection of Historic Properties*.

We support the PR Department of Housing's finding of **no historic properties affected** for this undertaking.

Please note that should you discover other historic properties at any point during project implementation, you should notify the SHPO immediately. If you have questions regarding this matter, please contact our Office at (787) 721-3737 or email, ediaz@prshpo.pr.gov.

Sincerely,

Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/MB



Exhibit B



GOBIERNO DE PUERTO RICO
Instituto de Cultura Puertorriqueña

19 DE OCTUBRE DE 2018

SISTEMA INTEGRADO DE PERMISOS

Oficina de Gerencia de Permisos
PO Box 41179
San Juan, Puerto Rico 00940-1179

NO OBJECCIÓN

CASO OGPe: 2018-241750-SRA-020069
MUNICIPIO: SAN JUAN
UBICACION: URB. ENSUEÑO
CARRETERA 844, KM. 4
BARRIO CUPEY, SAN JUAN, PUERTO RICO
NUMERO DE CATASTRO: 115-084-398-85-000 Y 115-084-398-86-000
CALIFICACION: B-1
PROPONENTE: ING. HECTOR LOPEZ

Estimados señores:

El Instituto de Cultura Puertorriqueña (ICP), por medio de su Programa de Patrimonio Histórico Edificado (ICP-PHE), ha examinado el proyecto de referencia para determinar si afecta Propiedades de Valor Histórico y Arquitectónico que estén protegidas, o sean elegibles a serlo, bajo las leyes y reglamentos que nuestra agencia tiene responsabilidad de administrar, como agencia primaria, endosante o recomendante. Estas leyes y reglamentos incluyen, entre otros:

1. La ley 89 del 21 de junio de 1955 S.E., Ley Orgánica del Instituto de Cultura Puertorriqueña, en especial el inciso 4(a)(7), “Determinar que edificios o estructuras son de valor histórico o artístico en Puerto Rico. (...)” y el inciso 4(a)(8), “Asesorar a la Junta de Planificación en la reglamentación de construcción en aquellas zonas que determine como zonas de valor histórico. (...)”.
2. La ley 89 del 21 de junio de 1955 S.E., Ley Orgánica del Instituto de Cultura Puertorriqueña, en su inciso 4(b)(3) según enmendado por la ley 119 del 26 de septiembre de 2005, que permite “adoptar, enmendar o derogar, por conducto de su Junta de Directores, las reglas que gobiernen [el] funcionamiento y el descargo de los poderes” concedidos e impuestos al ICP por ley, y la imposición de multas administrativas y/u otras sanciones por su incumplimiento o violación.




CASO OGPe: 2018-241750-SRA-020069
MUNICIPIO: SAN JUAN
UBICACION: URB. ENSUEÑO
CARRETERA 844, KM. 4
BARRIO CUPEY, SAN JUAN, PUERTO RICO
NUMERO DE CATASTRO: 115-084-398-85-000 Y 115-084-398-86-000
CALIFICACION: B-1
19 DE OCTUBRE DE 2018
PÁGINA 2 DE 2

3. El Reglamento Conjunto de Permisos para Obras de Construcción y Uso de Terrenos, Reglamento 31 de la Junta de Planificación (“Reglamento Conjunto”) con vigencia del 29 de noviembre de 2010, en todos los incisos aplicables a zonas y sitios históricos, en especial los Capítulos 54 (Reglamento de Zonas y Sitios Históricos) y 60 (Designación de Zonas y Sitios Históricos) – incluyendo, en las zonas históricas, edificios elegibles, no elegibles, solares vacíos y espacios públicos.
4. Las zonificaciones SH (antes CR-H) cubiertas por el Capítulo 19, Regla 19.29 del Reglamento Conjunto.
5. La disposición del Capítulo 54, Regla 54.5, §54.5.6 del Reglamento Conjunto que establece, para las Plazas de Recreo y edificios circundantes, las reglas de la protección del Patrimonio Histórico.
6. La Resolución JPE-047 de 1994, la cual requiere evaluación del ICP para consultas y usos a darse a edificios públicos construidos anteriores a 1960.
7. La exigencia de endoso o comentario del ICP aplicable a propiedades designadas de valor histórico y arquitectónico por otros medios, tales como:
 - a. Resolución de la Asamblea Legislativa
 - b. Monumentos Históricos designados por la Junta de Directores del ICP
 - c. Propiedades designadas por un plan de ordenamiento territorial de un Municipio Autónomo y que esté en vigor, o por el Plan de Uso de Terrenos de Puerto Rico
 - d. Ser declaradas históricas en un plan especial de zonificación.
 - e. Otras propiedades referidas por cualquier componente del Sistema Integrado de Permisos (SIP), la Oficina de Permisos de un Municipio Autónomo con poder de otorgar permisos, la Junta de Planificación, el Programa de Arqueología y Etnohistoria del ICP, u otra agencia o entidad de gobierno con poder reglamentario.
8. Petición a solicitud voluntaria de un propietario o derechohabiente de una propiedad.

De acuerdo a nuestros expedientes y la información provista, el Programa de Patrimonio Histórico Edificado emite su **NO OBJECCIÓN** para la construcción de 88 unidades de vivienda unifamiliares de interés social dentro de los predios de terreno.

Este documento tiene vigencia de un (1) año a partir de su emisión.

Sin otro particular, quedo.


Mildred González Valénfin, MArch.
Directora Interina, Programa de Patrimonio Histórico Edificado
Instituto de Cultura Puertorriqueña

MGV/jcs/dvt

Cc: Expediente caso PPHE, ICP

Programa de Patrimonio Histórico Edificado
Apartado 9024184, San Juan, Puerto Rico 00902-4184
Teléfono: (787) 724-0700





GOBIERNO DE PUERTO RICO
Instituto de Cultura Puertorriqueña

12 de octubre de 2018

AUTORIZACIÓN

Ing. Héctor Rodríguez Echevarría
Director Ejecutivo Interino
Oficina de Gerencia de Permisos
PO Box 41118
San Juan, Puerto Rico 00940

**ENSUEÑO (ANTES ALTOS DE LAS CUMBRES)
PR 844, KM 4.0, BO. CUPEY, SAN JUAN
CASO OGPE #2018-241750-SRA-020069**

ICP SJ-16-399

Estimado ingeniero Rodríguez:

El **Programa de Arqueología y Etnohistoria** del Instituto de Cultura Puertorriqueña ha evaluado los documentos relacionados al proyecto de referencia, recibidos a través de la División de Arqueología y Conservación Histórica de la Oficina de Gerencia de Permisos (OGPe).

La evaluación realizada sugiere que, basado en los datos existentes al presente, las probabilidades de impactar un recurso arqueológico, según definido por la Ley 112 del 20 de julio de 1988, según enmendada, son mínimas.

Por lo tanto, en lo concerniente a recursos culturales de naturaleza arqueológica, **no tenemos objeción** al proyecto según fue radicado y evaluado.

Le notificamos que esta autorización es de tipo parcial y que el proponente queda sujeto a las responsabilidades y obligaciones que impone la Ley 112 del 20 de julio de 1988, según enmendada. Esta establece que, **se deberá paralizar todo tipo de actividad de excavación, movimiento y remoción de la corteza terrestre, y notificar en un plazo de veinticuatro (24) horas al Consejo de Arqueología Terrestre, en caso de que, durante el desarrollo del proyecto, se descubra o impacte algún depósito, elemento, estructura o vestigio de naturaleza arqueológica.**

Se le apercibe que el incumplimiento de estos requerimientos podrá ser objeto de sanciones administrativas según lo establecido en las citadas leyes.

Esta autorización tiene **vigencia de (1) año.**

Cordialmente,

Dr. Carlos Pérez Merced
Director Interino
Programa de Arqueología y Etnohistoria

CAPM/GOE/mgb

PROGRAMA DE ARQUEOLOGÍA Y ETNOHISTORIA

Apartado 9024184, San Juan, Puerto Rico 00902-4184
Teléfono: (787) 723-2524 / (787) 724-0700 ext. 1362



Exhibit C



GOBIERNO DE PUERTO RICO
Instituto de Cultura Puertorriqueña

12 de octubre de 2018

AUTORIZACIÓN

Ing. Héctor Rodríguez Echevarría
Director Ejecutivo Interino
Oficina de Gerencia de Permisos
PO Box 41118
San Juan, Puerto Rico 00940

**ENSUEÑO (ANTES ALTOS DE LAS CUMBRES)
PR 844, KM 4.0, BO. CUPEY, SAN JUAN
CASO OGPE #2018-241750-SRA-020069**

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Esta autorización tiene **vigencia de (1) año**.

Cordialmente,

Dr. Carlos Pérez Merced
Director Interino
Programa de Arqueología y Etnohistoria

CAPM/GOE/mgb





GOBIERNO DE PUERTO RICO
Instituto de Cultura Puertorriqueña

19 DE OCTUBRE DE 2018

SISTEMA INTEGRADO DE PERMISOS

Oficina de Gerencia de Permisos
PO Box 41179
San Juan, Puerto Rico 00940-1179

NO OBJECIÓN

CASO OGPe: 2018-241750-SRA-020069
MUNICIPIO: SAN JUAN
UBICACION: URB. ENSUEÑO
CARRETERA 844, KM. 4
BARRIO CUPEY, SAN JUAN, PUERTO RICO
NUMERO DE CATASTRO: 115-084-398-85-000 Y 115-084-398-86-000
CALIFICACION: B-1
PROPONENTE: ING. HECTOR LOPEZ

Estimados señores:

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CASO OGPe: 2018-241750-SRA-020069
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PÁGINA 2 DE 2

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8. Petición a solicitud voluntaria de un propietario o derechohabiente de una propiedad.

De acuerdo a nuestros expedientes y la información provista, el Programa de Patrimonio Histórico Edificado emite su **NO OBJECCIÓN** para la construcción de 88 unidades de vivienda unifamiliares de interés social dentro de los predios de terreno.

Este documento tiene vigencia de un (1) año a partir de su emisión.

Sin otro particular, quedo.



Mildred González Valentín, MArch.
Directora Interina, Programa de Patrimonio Histórico Edificado
Instituto de Cultura Puertorriqueña

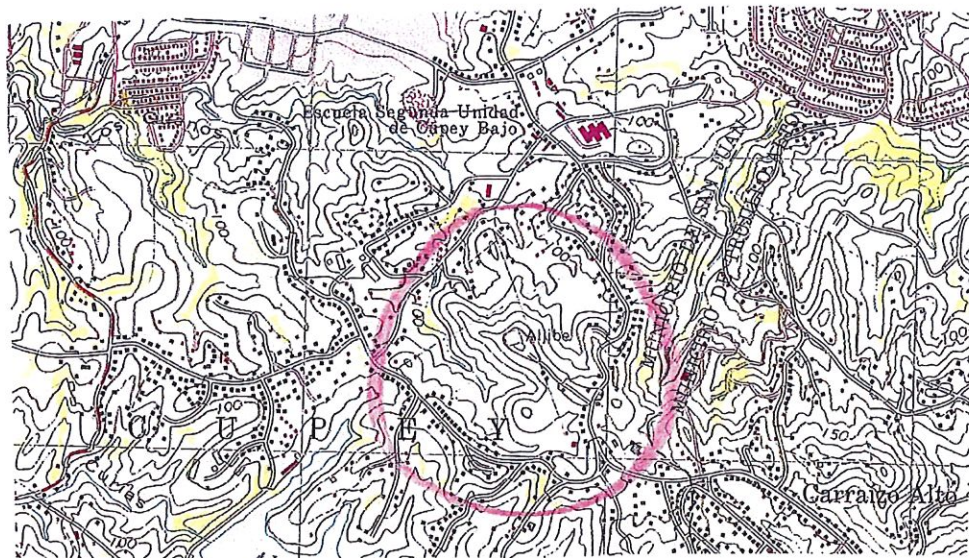
MGV/jesl/dvt

Cc: Expediente caso PPHE, ICP

Programa de Patrimonio Histórico Edificado
Apartado 9024184, San Juan, Puerto Rico 00902-4184
Teléfono: (787) 724-0700



EVALUACION ARQUEOLOGICA FASE 1A
PROYECTO VISTAS REALES
CARRETERA ESTATAL PR - 844
BO. CUPEY, RIO PIEDRAS
PUERTO RICO



SOMETIDO A:
LEMA DEVELOPERS
ARQ. ANDRES LOZANO
Calle Bolivia # 54, Suite 203
HATO REY, PUERTO RICO

PREPERADO POR:
ARQL. VIRGINIA RIVERA CALDERON
SIXTO A. PEREZ, P.E., AIA

NOVIEMBRE 1998

Tel. (787)283-8373, Fax (787)748-3704, E-Mail: bieque@caribe.net

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I. INTRODUCCION

Según las disposiciones de la Ley 112 relacionada con la Protección del Patrimonio Arqueológico Terrestre del 20 de Julio de 1988, se requiere que las agencias gubernamentales y los proyectistas privados tomen en cuenta los recursos culturales conocidos o que puedan existir en los terrenos que serán objeto de algún tipo de desarrollo. A tales efectos es necesario llevar a cabo evaluaciones arqueológicas con miras a determinar la presencia o ausencia de recursos culturales en dichos terrenos previo a cualquier movimiento de terreno que pueda causar peligro a la integridad de los recursos culturales conocidos o existentes en el área del proyecto.

Estos estudios arqueológicos son sometidos y evaluados por las agencias responsables del quehacer cultural de nuestro país como lo son el Instituto de Cultura Puertorriqueño y la Oficina Estatal de Preservación Histórica en casos de proyectos con financiamiento federal. Ambas agencias determinan si los estudios cumplen con el objetivo de protección de los bienes culturales antes señalado.

En este caso la firma, Lema Developers, son los desarrolladores de dicho proyecto y nos han solicitado llevar a cabo una Evaluación de Recursos Culturales Fase 1A para el proyecto Vistas Reales, localizado en el Barrio Cupey. El proyecto ocupa una finca de 50 aproximadamente.

II. FASE DE ESTUDIO

Regularmente los trabajos se componen de dos Fases de trabajo, estas son Fase 1A-Fase 1B. En este caso particularmente solo se nos ha solicitado llevar a cabo la Fase 1A, para dicho proyecto.

La primera fase de la evaluación de recursos culturales, conocida como la Fase 1A, consiste de una revisión de los estudios arqueológicos previos realizados en la zona bajo evaluación, revisión de la literatura arqueológica, revisar las hojas de inventarios y los cuadrángulos en busca de sitios previamente identificados en dicha zona. Establecer las condiciones ambientales del sitio y finalmente llevar a cabo un reconocimiento sobre la

superficie de los terrenos que ocupan dicho proyecto con el propósito de identificar cualquier recurso cultural visible.

Estas investigaciones deben estar dirigidas hacia la relación de estos factores en torno a las posibilidades arqueológicas específicas de la propiedad. Al finalizar esta fase de estudio el arqueólogo estará en una mejor posición para señalar la sensibilidad arqueológica del terreno en general, y las áreas específicas donde puedan existir posibilidades mayores de identificar evidencias culturales en los terrenos del proyecto.

III. LOCALIZACION

San Juan se encuentra situado en la costa norte, por este rumbo limita con las aguas del océano Atlántico; por el sur con Aguas Buenas y Caguas; por el este con Carolina y Trujillo Alto, por el oeste con Guaynabo. Su superficie es de 124 kilómetros cuadrados (FIG. 1).

La finca a desarrollarse se encuentra al sureste de Río Piedras en la Carretera Estatal PR-844 Kilómetro 4.0 del barrio de Cupey (FIG1,2). El propuesto proyecto Vistas Reales, ocupa un predio de terreno aproximado de 50 cuerdas.

Los terrenos bajo evaluación se encuentran delimitados de la siguiente manera; por el norte con la Sucesión Germán Ayala, Benjamín Medina, Manuel Bonilla y Roque Castro; en su lado sur por la Carretera Estatal PR-844, Adrian Betancourt y Florencio Pérez; En su lado este con la Carretera Estatal PR-844, Eduardo Fernández y Jesús Solís; y el lado oeste con la Sucesión José Andino, Julio Ayala, Víctor Fernández y Sucesión Vangelio Andino.

El acceso al desarrollo será por la Carretera Estatal PR-844. Esta entrada está localizada a 500 metros al sur de la futura Avenida Las Cumbres (PR-199). La Autoridad de Carreteras recién construyó la intersección de la Carretera PR-844 y la futura PR-199

IV. CONDICIONES ACTUALES DE LOS TERRENOS

Los terrenos que comprenden el desarrollo del Proyecto de Vistas Reales son en su mayoría muy accidentados, dejando muy pocas áreas llanas. En el centro de la finca existe un área que ha sido nivelada con el propósito de ubicar un tanque de agua de la Autoridad de Acueductos y construir una carretera de acceso al tanque (FOTO 1,2,3) En las colindancias con algunas de las residencias también observamos pequeñas áreas llanas (FOTO 4).

Observamos durante la prospección en el campo que los terrenos localizados al centro colindantes con el tanque de agua son los más accidentados (FOTO 5). En la parte central de los terrenos identificamos una pequeña quebrada con algunas rocas. Los terrenos no mostrarn alteraciones mayores con la excepción del área donde se encuentra ubicado el tanque de agua de la Autoridad de Acueductos.

V. DESCRIPCION DEL PROYECTO

El proyecto de Vistas Reales propone la construcción de 707 unidades de viviendas. Las unidades de viviendas se dividen como sigue:

1. Apartamentos.....541
2. Solares con viviendas.....166

La fase de apartamentos consiste de siete edificios con un total de 541 unidades tipo "walk-up-walk-down". Se proveerá área de estacionamiento, facilidades vecinales, áreas verdes y entrada con acceso controlado.

Las 166 unidades residenciales tendrán un solar de 300 metros cuadrados. El desarrollo residencial contará con facilidades vecinales separadas a las de los apartamentos. Además se proveerá áreas verdes y entrada con acceso controlado.

Las facilidades vecinales contarán con un centro cultural, terraza de actividades, cancha de baloncesto, piscina y área de juegos para niños (FIG.3)

VI. MEDIOAMBIENTE

A continuación describiremos los aspectos más relevantes del medioambiente de la zona en general y del área en particular bajo evaluación.

A. Hidrografía

La isleta de San Juan está localizada al norte de la Bahía de San Juan, la más grande bahía de la isla de Puerto Rico. Está separada de la isla por la Laguna del Condado y el Caño San Antonio.

El Océano Atlántico al norte posee arrecifes y aguas profundas. Al sur hacia la Bahía aún existen frágiles zonas de mangles, que debieron haber cubierto totalmente su contorno hasta épocas recientes. Varios ríos y quebradas desembocan en la Bahía de San Juan entre ellos el Río Puerto Nuevo, Río Piedras y el Río Bayamón.

El área donde radica el proyecto corresponde al barrio Cupey, localizado al sureste de San Juan. Existen varios cuerpos de agua cercanos al propuesto proyecto éstos son; Quebrada las Curiás, al oeste del proyecto; Quebrada los Guanos al norte; Quebrada Colorada al sur y Quebrada Cepero al este. En dirección este, también se encuentra el Río Grande de Lotza a una distancia aproximada de 3.5 kilómetros. Todas las quebradas mencionadas desembocan en el Río Grande de Lotza.

B. Suelos

Los suelos son considerados como factores útiles para establecer las posibilidades arqueológicas de un terreno. El criterio se base en la importancia que las actividades agrícolas tenían para la mayoría de los grupos aborígenes que habitaron la isla. La siembra en particular de la yuca debió requerir que estos grupos establecieran sus aldeas cercanas a lugares donde los terrenos son más propicios para este tipo de siembra. También debemos tomar en cuenta la siembra de otros frutos como lo son el maíz, maní, frijoles y otros productos que pudieron formar parte de la dieta aborígen.

En ocasiones se ha utilizado este criterio automáticamente estableciendo altas posibilidades arqueológicas en zonas de terrenos generalmente considerados por los estudios

de suelo como fértiles y propios, pero para siembras a escala comercial de productos como la caña de azúcar y frutos menores. Esto es un error debido a que por ejemplo, los suelos propios y de mayor rendimiento para la siembra de yuca y maíz no son los mismos que para la siembra de caña de azúcar, plátanos o café. Tampoco los métodos rudimentarios y manuales de siembra de la yuca en la antigüedad, son similares al uso de maquinaria agrícola que se emplea para la caña de azúcar.

En el caso de la yuca, los terrenos más propios son los de buen drenaje que no retengan humedad, que tengan alta fertilidad natural y por lo general de consistencia arenosa y de poca compactación para que el tubérculo pueda crecer al máximo. En adición a todo lo antes mencionado los terrenos deben ser manejable con los implementos agrícolas sencillos como lo es la coa y otras herramientas agrícolas indígenas.

El factor tipo de suelo para la determinación de posibilidades arqueológicas ha sido utilizado y discutido por algunos arqueólogos en Puerto Rico (Vescelesious, Walker 1984, Rodríguez 1984, 1985, 1989) y debe ser utilizado con mucha precaución para que tenga lógica y validez científica.

En este caso los terrenos que acogen el proyecto aparecen evaluados en el Soil Survey del Area de San Juan como, Arcilla Mucara (MxE). Estos terrenos tienen de un 20 a un 40 de pendientes, son muy accidentados. Las pendientes son irregular con tamaño de 200 a 1000 pies de largo.

Típicamente la capa superficial es de color marrón gricáseo oscuro de textura arcillosa con un grosor de 5 pulgadas. El subsuelo es de 7 pulgadas de grosor, de color marrón oscuro de textura arcillosa. La capa de la subestrata comenzando a una profundidad de 12 pulgadas, está compuesta de roca volcánica en descomposición. El lecho de roca aparece a una profundidad de 30 pulgadas.

La permeabilidad es moderada y la escorrentía es muy rápida. La erosión es un peligro. Los terrenos son de difícil manejo debido a lo accidentado y debido a su textura arcillosa.

C. Topografía

La Isleta de San Juan es casi completamente llana, excepto el sector del Viejo San Juan, cercano a la Iglesia de San José y el Convento de los Dominicos, en donde existe

un promontorio el cual debió obtenerse en épocas anteriores una vista de toda la región, en donde se encuentra uno de los sitios de mayor antigüedad asociados a la época aborigén. Es sobre estos mismos cimientos que se construye la Iglesia San José posteriormente.

La topografía del barrio de Cupey, es en su mayoría accidentada. Los terrenos evaluados corresponden a una topografía sumamente accidentada (FOTO 6), con pocas áreas llanas, algunas de las cuales han sido creadas artificialmente. En la zona central de los terrenos existen varias colinas altas que bajan abruptamente hacia el área de las casas, formando áreas llanas (FOTO 7).

VII. ARQUEOLOGIA DE LA REGION DE CUPEY

Esta sección del informe ofrecerá información sobre la arqueología de Cupey y no de San Juan. Entendemos que los sitios arqueológicos de San Juan están bastante lejos del área evaluada y no guardan relación inmediata con la arqueología de la zona.

Por lo tanto llevamos a cabo una revisión de documentos del Barrio de Cupey, para propósitos de este informe. Luego de revisar todos los informes archivados en el Consejo de Arqueología Terrestre y La Oficina Estatal de Preservación Histórica, solo fue posible identificar un área con evidencias culturales. Esta ha sido señalada por el arqueólogo J. Walker en su informe Fase 1A para el proyecto, El Coquí Development, este informe fue realizado en el año 1982.

Se indica en el informe la existencia de nueve localidades con evidencias arqueológicas. Cuatro con evidencias prehistóricas y ocho con evidencias históricas tres de las cuales presentan evidencias tanto prehistóricas como históricas. Señala Walker en su informe que las evidencias prehistóricas parecen estar asociadas al periodo arcaico y varios fragmentos de cerámica al periodo tardío de la prehistoria. Los materiales históricos parecen estar asociados al siglo XVIII hasta el presente (FIG. 4).

Hasta el momento este es el único sitio registrado en las agencias para el área de Cupey. No sabemos si para el proyecto El Coquí Development, se llevaron a cabo trabajos adicionales de Fase 1B. No fue posible identificar un informe a esos efectos, asumimos que no se llevaron a cabo trabajos adicionales.

VIII. ANTECEDENTES HISTORICOS

Nos señala Don Manuel de Ubeda y Delgado en su Estudio Histórico y Estadístico de la Isla de Puerto Rico, que para el año 1878 el Barrio de Cupey formaba parte de Río Piedras, dice lo siguiente, " Se encuentra dividido en los barrios siguientes: pueblo; Hato Rey al norte, Sabana Llanan al este, Caimito, Cupey, Tortugo, Quebrada Arenas, Mamey, Hato Nuevo y y Río al sur, Frailes al suroeste y Monacillos al oeste".

Se cosecha alguna caña y frutos menores, existiendo dos haciendas con maquinas de vapor y una con trapiche de bueyes.

Hay en el territorio siete escuelas, estas se encuentran en los barrios Quebrada Arena, Río, Caimito Monacillos y Sabana Llana.

El pueblo fue fundado en 1774, y está situado hacia la costa norte al sureste de la Capital, al oeste de la Carolina, al noroeste de Trujillo Alto y al este de Bayamón.

En la Actualidad el Barrio Cupey pertenece a San Juan y tiene una población estimada en 27,739. Es un barrio que durante los últimos años se ha convertido en parte del área metropolitana.

IX. METODOS DE INVESTIGACION

A. Revisión de documentos

Primeramente revisamos todos los plano del proyecto y la literatura relacionada a evaluaciones arqueológicas realizadas y demás información depositada en el Consejo de Arqueología Terrestre y en la Oficina estatal de Preservación Histórica. Como resultado revisamos un total de 17 informes de distintos proyectos realizados para el Barrio de Cupey. Estos son los siguientes;

1. Estudio Recursos Culturales Fase1 Proyecto Avenida las Cumbres PR-199 entre la Pr-176 y la PR-845, Río Piedras, Trujillo Alto. realizado por Arql. Martí, resultados negativo (1996).

2. *Investigación de Archivo e Inspección Preliminar Fase 1A, Proyecto Bosques de Cupey Garden Apartments, Urbanización Villa Franco Cupey Alto San Juan, realizado por Arql. Aramis Font, resultados negativo (1994).*
3. *Evaluación de Recursos Culturales Fase 1A Proyecto Clearview Multistory Bldg. & Placidark "walk-ups" Apts. Carretera Estatal PR-199 Ave. Las Cumbres barrio Cupey Bajo, realizado por Arql. Iván Meendez, resultados negativo (1996).*
4. *Investigación Arqueológica Fase 1A-1B, Proyecto Ensanche de la Carretera Antigua Via Carretera PR-845 a PR-846, Rfo Piedras, realizado por arql. Marlen Díaz, resultados negativos, (1991).*
5. *Evaluación Arqueológica Fase 1A-1B Centro de Diagnóstico y Tratamiento de Cupey y Caimito, realizado por Arql. Juan González, resultados negativo (1994).*
6. *Proyecto Paseo Las Vistas Fase 1A-1B, Barrio Cupey, Rfo Piedras, realizado por Arql. Carlos Ayes, resultado negativo (1991).*
7. *Evaluación de Recursos Culturales Fase 1A-1B Proyecto Urbanización Los Adoquines, Barrio Cupey, realizado por Arql. Juan González, (1998).*
8. *Evaluación Arqueológica Fase 1A-1B, Proyecto Vistas de Cupey, Barrio Cupey, realizado por Arql. Marleen Ramos, resultados negativo, (1995).*
9. *Estudios de Recursos Culturales Fase 1A-1B, Proyecto Colina Real, Barrio Cupey, realizado por Antonio Daubón, (1991).*
10. *Evaluación Arqueológica Fase 1A-1B, Proyecto Centro de Diagnóstico y Tratamiento de Cupey, realizado por arql. resultados negativo, (1994).*
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13. *Investigación Arqueológica Fase 1A-1B, Proyecto Veredas del Monte, Cupey, realizado por Arql. E. Schlafer, resultados negativo, (1992).*

14. Evaluación Arqueológica Fase 1A, Proyecto Paseos de Cupey, Río Piedras, realizado por Arq. María Cashión, (1997).

15. Survey de Recursos Culturales 1A-1B, Proyecto Mejoras al Sistema de Acueductos del Barrio Cupey Alto, Incluyendo Nueva fuente de Abasto en Lago Las Curtas y Planta de Filtración, realizado por A. Daubón, (1991).

16. Evaluación Arqueológica Fase 1A-1B Proyecto Mirador de Cupey, Barrio Cupey Alto, Río Piedras, realizado por Arq. Miguel Rodríguez, resultados negativo, (1987).

*17. Evaluation of Potencial for Cultural Resources for El Coqui Development, por Arq. J. Walker, resultados positivo, (1982).

B. Prospección de Campo

Durante el mes de octubre un grupo de tres personas visitamos el área de trabajo y comenzamos realizando una prospección en los terrenos (FOTO 8). Primeramente establecimos corredores en ciertas partes de la finca, cada corredor se ubicó a una distancia de cincuenta metros. Mediante cada corredor fue posible observar cuando posible la superficie de los terrenos en busca de algún indicador cultural. Lamentablemente no fue posible recorrer toda la finca, debido a que la visibilidad de la superficie particularmente en la parte central de la finca era ninguna.

Durante la inspección ocular en los corredores identificamos varias rocas, estas fueron revisadas en busca de petroglifos (FOTO 9).

X. RESULTADOS FASE 1A

En resumen, después de revisar todos los documentos localizados en las oficinas responsables de endosar las evaluaciones arqueológicas, evaluar las condiciones del medioambiente y llevar a cabo una prospección sobre los terrenos que ocuparán dicho proyecto, podemos señalar que existen posibilidades de detectar yacimientos o evidencias arqueológicas del periodo aborígen o de tiempos coloniales en las pocas zonas llanas existentes en los terrenos. Al considerar el factor del medioambiente existen mayores

posibilidades debido a la cercanía del terreno a los cuerpos de agua existentes, las cuales en épocas de la prehistoria aportarían gran parte de la dieta alimentaria para dichas comunidades. El factor limitante lo compone la topografía accidentada en gran parte de los terrenos.

También debemos considerar los nueve sitios arqueológicos informados durante la evaluación arqueológica para el proyecto El Coquí Development, este hallazgo es relativamente cerca a los terrenos evaluados.

X.I. CONCLUSIONES Y RECOMENDACIONES

Durante el estudio Fase 1A, revisamos 17 evaluaciones arqueológicas. En uno de dichas evaluaciones se informa para el proyecto Coquí Development, haber identificado nueve sitios con evidencias arqueológicas. Este lugar se encuentra hacia el oeste a una distancia aproximada de menos de un kilómetro. Todos los demás informes resultaron negativos.

Durante la prospección realizada en los terrenos se hizo sumamente difícil poder llevar a cabo una inspección ocular en gran parte de los terrenos debido a la densa vegetación existente en los terrenos y lo accidentado de los terrenos. Solo fue posible observar varios cortes en las casas colindantes y ciertas áreas desprovistas de vegetación.

Los resultados preliminares del trabajo de la prospección de campo y la revisión de documentos indican la necesidad de proceder con trabajos de Fase 1B. El propósito principal de estos trabajos es poder determinar con mayor exactitud la presencia o ausencia de evidencias culturales, mediante la excavación de catas de sondeo en los terrenos del proyecto. Una de las razones por las cuales es necesario llevar a cabo catas de sondeo es la falta de visibilidad de la superficie debido a la densa vegetación existente en los terrenos.

Con esta fase de trabajo contaremos con mayor información para determinar la presencia o ausencia de evidencias arqueológicas en los terrenos evaluados.

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Oficinas del Consejo de Arqueología Terrestre:*

*Informes arqueológicos del área de San Juan.
Cuadrángulos U.S.G.S. (Aguas Buenas)
Inventario de Lugares Arqueológicos
Inventario Arqueológico,*

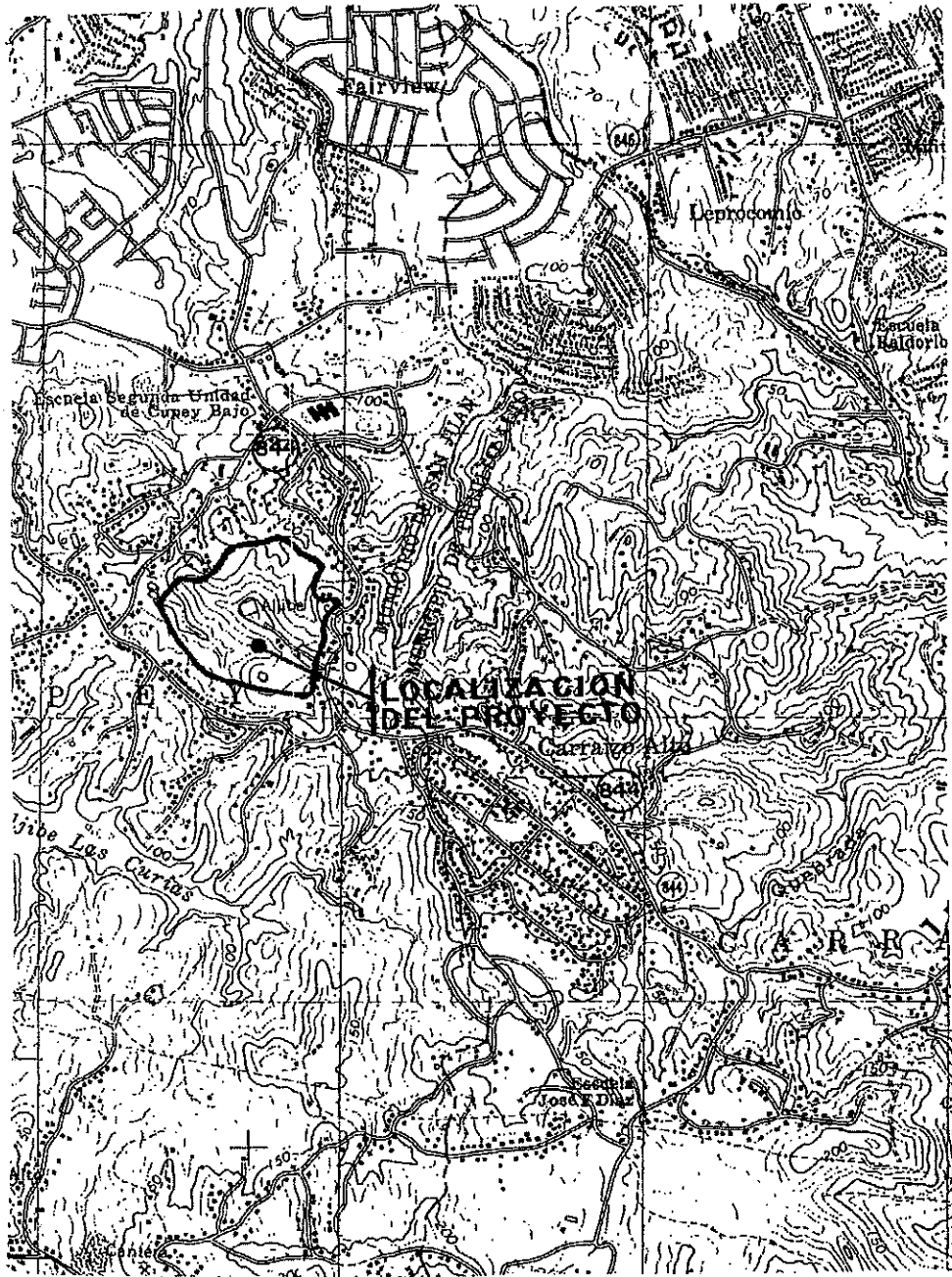


FIGURA-2-Segmento cuadrángulo de Aguas Buenas, localizando área del proyecto Vistas reales.

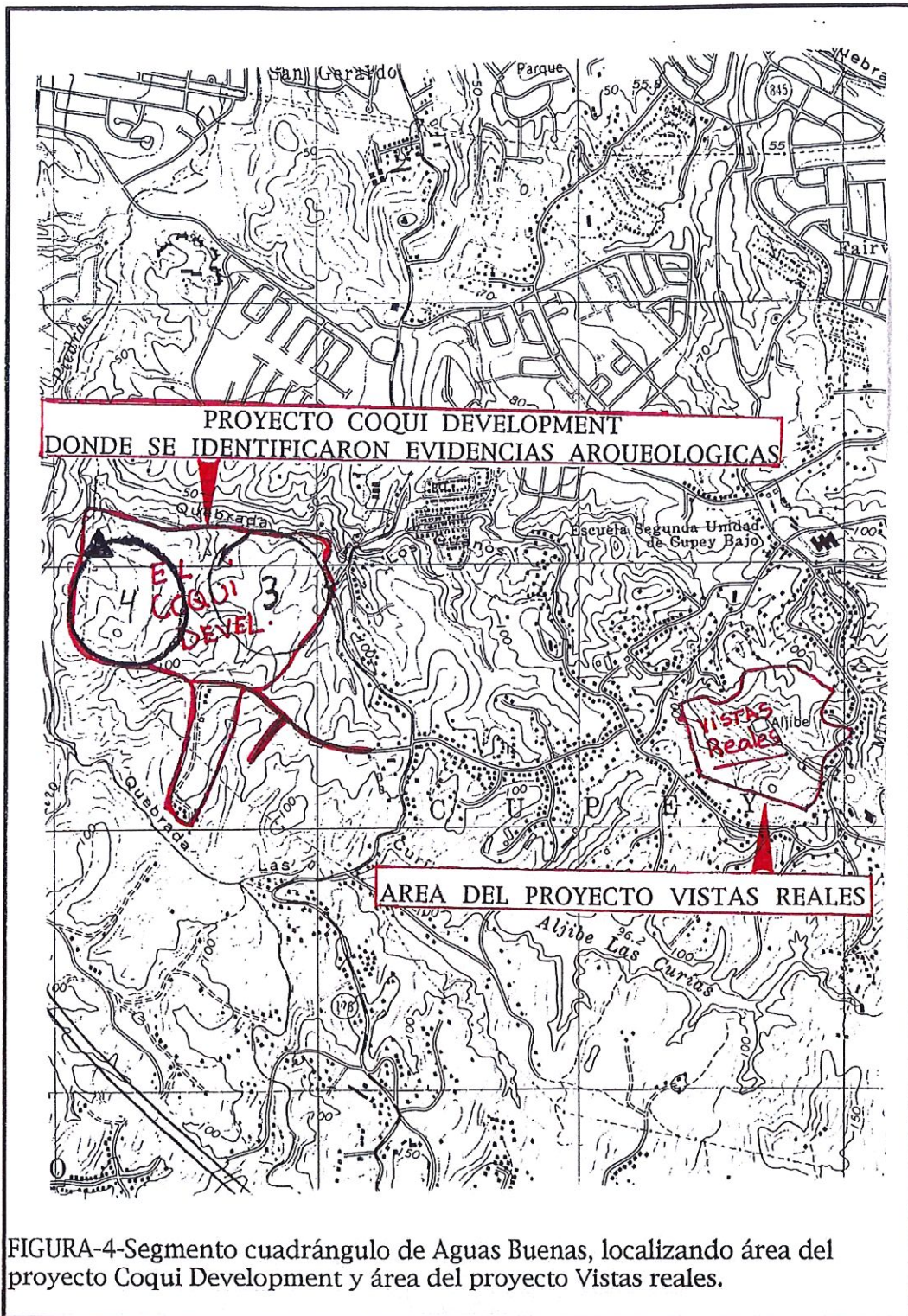


FIGURA-4-Segmento cuadrángulo de Aguas Buenas, localizando área del proyecto Coqui Development y área del proyecto Vistas reales.



FOTO-1-Area central de los terrenos mostrando modificaciones.



FOTO-2-Vista de la pared este del tanque de agua existente.



FOTO-3-Vista del área nivelada y la Carretera construída para acceso.



FOTO-5-Vista de los terrenos mostrando topografía accidentada.

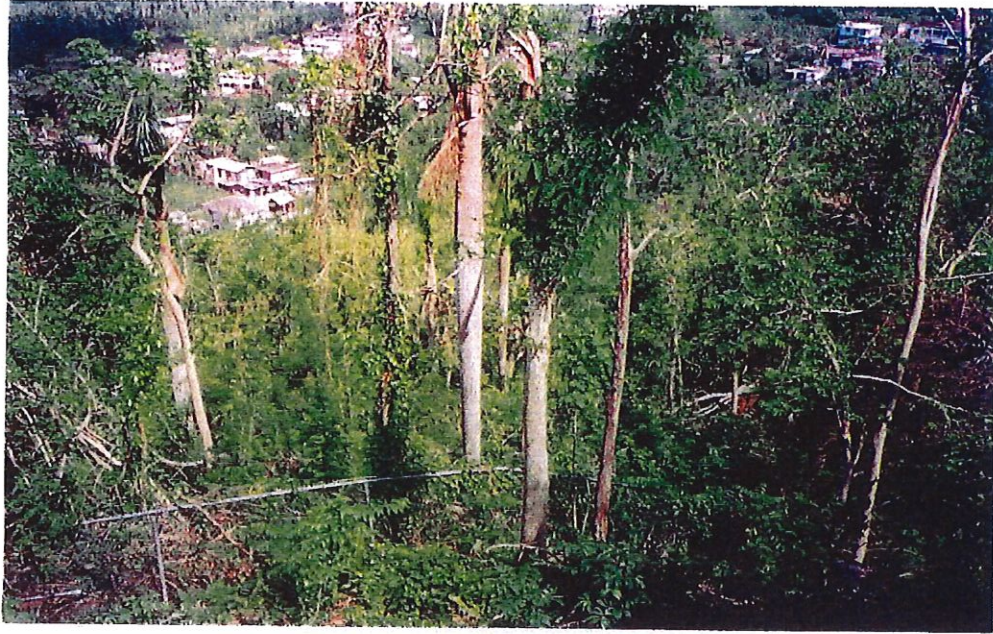


FOTO-6-Vista lado norte de los terrenos, mostrando pendiente hacia las casas



FOTO-7-Area llana de los terrenos colindante a las casas.



FOTO-8-Revisando los terrenos en uno de los corredores establecidos.



FOTO-9-Roca identificada durante inspección de campo.

Exhibit D

PREPARED FOR:

PR HOUSING AUTHORITY
SAN JUAN, PR.

TFS HOUSING, LLC.
SAN JUAN, PR.

PREPARED BY:

CTS GROUP, INC.
SAN JUAN, PR.

DATABASES SEARCH
PROVIDED BY:



ESA PHASE I
ASTM E1527-13

CLIENT: TFS HOUSING, LLC. (ENSUEÑO CUPEY)
SITE: ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO.

PROJECT ID: TFS-10-021
SUPPORT: INFO@CTSGROUPPR.COM

NOVEMBER 25, 2021

Background and Disclaimer: The purpose of an environmental site assessment is to identify actual or potential “recognized environmental conditions” that may result in liability or land use restrictions. The ASTM 1527-13 Environmental Site Assessment is the minimum standard for environmental due diligence in the commercial real estate industry and currently meet the standard for All Appropriate Inquiry under the Small Business Liability Relief and Brownfield’s redevelopment Act of 2002. A diligent effort in accordance with generally accepted good commercial and customary standards and practice was undertaken to identify the “recognize environmental conditions” that might affect the redevelopment project. However, the identification of old hazardous waste sites is an evolving process; therefore, CTS Group, Inc. cannot state with absolute certainty that no other potentially hazardous waste site is located in the area.

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1.0 EXECUTIVE SUMMARY

Mr. Carlos Gonzalez acting as an authorized representative of TFS Housing, LLC. engaged CTS Group Inc. to conduct a Phase I Environmental Site Assessments (ESA) of a group of five (5) vacant lots of land with no prior commercial use on record. The site is located at Road PR-844, Km. 4, Cupey Ward, San Juan, Puerto Rico. This property will be subsequently referred to in this report as “the subject property”. This assessment was prepared in accordance with the American Society of Testing Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessments Process (ASTM Designation E1527-13).

The purpose of the Phase I was to evaluate environmental concerns or issues with respect to the range of contaminants within the scope of the Comprehensive Environmental Response and Liability Act (CERCLA) and petroleum products that may be associated with the Subject Property, based upon readily available information and site observations. In defining a standard of good commercial and customary practice for conducting an environmental site assessment of a property, the goal of the processes established by this practice is to identify “*Recognized Environmental Conditions (REC)*”. A REC means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include *de minimis* conditions that generally do not present a threat to the human health or the environment and that generally would not be subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The subject property is located in a Zone X, outside the 1% annual chance of flood area as per FEMA Emergency Flood Map No. 72000C0735H with an effective date as of April 19, 2005. The Zone X is area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X may have pond prone areas and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood. The environmental professional, however, is not qualified to determine the flooding conditions of the subject site. The Subject Site is assumed to be free of adverse floodable conditions that might affect its intended development, and no liability or responsibility is assumed in this respect. Further analysis of the flood insurance or flood certification is beyond the scope of this Environmental Assessment. According to the Office of Urban Planning of the Autonomous Municipality of San Juan the subject property is located on a Specially Protected Rustic Soil (SREP) zoning

district with some areas designated as Interior Forest (B-1) zoning district. This zoning permits the intended use of the property. A complete zoning compliance assessment is beyond the scope of this Environmental Site Assessment.

The Municipality of San Juan was contacted in order to corroborate the information provided previously regarding any environmental incident or known condition related to the Subject Property and surroundings properties. We were able to contact engineer Maria Burgos Figueroa director of the Public Works Department. Mrs. Burgos indicated that there is not information in record connecting the subject and adjoining properties with any incident or violation that would result in the presence of a Recognized Environmental Condition. Mr. Jose E. Machuca sub-director of the Office for Emergency Management was also interviewed, and based on his observations the situation and condition of the subject property and the adjoining property remain the same since he was last interview. Based on Mr. Machuca, there is not record in his department connecting the Subject Property with any environmentally related incident or violation that will result in a risk for the human health and/or the presence of contaminants at the subject property. A letter was sent on October 12, 2021 to the Puerto Rico Environmental Quality Board requesting information regarding any environmentally related incident or violation in connection with the commercial operations of the subject property and the rest of the business in the subject's immediate vicinity. As of the completion of this report, CTS Group, Inc. has not yet received a response to the letter sent to the PR EQB requesting information (Copy of the communication is included in Appendix X of this report. No other responsive records have been received. Responses from agencies not yet received will be forwarded to TFS Housing, LLC. upon receipt with recommendations. After reviewing the available documentation in the U.S. EPA and the PR Environmental Quality Board's Underground Storage Tank Program in connection with the subject property, no information was found that would affect the professional opinion issued in this report.

The inspection of the subject property surrounding yield the following results:

- There is no evidence of oily films on standing water.
- There is no evidence of discolored and oil stained floors.
- There is no evidence of discarded chemical containers.
- There is no evidence of waste pipes, buried waste.
- There is no evidence of distressed vegetation.
- There is no presence of unusual odors.
- There is no evidence of a LUST Facility at the subject property
- There is no evidence of a LUST Facility at any of the adjoining properties.

The results of this assessment have revealed no Recognized Environmental Conditions associated with the Subject Property.

The results of this assessment have revealed no Controlled Recognized Environmental Conditions associated with the Subject Property.

The results of this assessment have revealed no Historical Recognized Environmental Conditions associated with the Subject Property.

The results of this assessment have revealed no de-minimis conditions associated with the property.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of an undeveloped property comprised of 5 vacant lots of land located at Road PR-844, Km. 4, Cupey Ward, San Juan, Puerto Rico, the property. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed no recognized environmental condition in connection with the subject property. Any exception to, or deletions from, this practice are described in Section 13.0 of this report. The Findings, Opinions, and Conclusion sections of this report are based on sections 12.5, 12.6, and 12.8 of ASTM E 1527-13, respectively.

It is our professional opinion that due to the fact that no recognized environmental conditions were identified during this assessment, there is no need to conduct any further study or testing in the subject property, unless there is a change of the current operations as describes herein. There was no Data Gap while conducting the research for this assessment that could have any significant impact in the findings described herein. Except for the limitations and exceptions discussed in Section 2.3, this Phase I ESA complies with the ASTM Standard 1527-13.

2.0 INTRODUCTION

CTS Group Inc. conducted a Phase I Environmental Site Assessment of a commercial property located at Road PR-844, Km. 4, Cupey Ward, San Juan, Puerto Rico and refers to five (5) vacant lots of land with no previous commercial use on record. This Phase I ESA is being conducted to comply with the requirements of a guaranteed commercial banking transaction in the Commonwealth of Puerto Rico. This Phase I ESA is being conducted as required by the Puerto Rico Housing Finance Authority.

2.1 Purpose

The purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an *environmental site assessment* of a parcel of *commercial real estate* with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and *petroleum products*. As such, this practice is intended to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser* limitations on CERCLA liability (hereinafter, the “*landowner liability protections*,” or “*LLPs*”): that is, the practice that constitutes *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B). Controlled substances are not included within the scope of this standard.

2.2 Detailed scope of Services

CTS Group, Inc. was engaged by Mr. Carlos Gonzalez acting as an authorized representative of TFS Housing, LLC. to conduct an ESA Phase I to conform to ASTM 1527-13. Mr. Carlos Gonzalez understands that it is the professional obligation of CTS Group, Inc. to report the findings from the assessment being conducted.

The scope of services for this project included a visual reconnaissance of the site and neighboring properties; review of readily available Federal, state, and local regulatory records; examination when available of historic information and evaluation of current and past operations and activities on-site. Matrix reviewed/utilized historic aerial photographs, Sanborn Fire Insurance Maps, historic topographic maps and city directories as part of the Phase I ESA. Additionally, a regulatory database search was conducted by CTS Group, Inc. for information available in governmental databases.

The Phase I ESA also included an initial Vapor Encroachment Screening (VES) to determine if a Vapor Encroachment Condition (VEC) is identified for the Target Property TP (that is, the presence or likely presence of Chemicals of Concern (COC)

vapors in the subsurface of the TP caused by the release of vapors from contaminated soil and/or groundwater either on or near the TP as identified by the Tier 1 procedure of ASTM E2600-10.

As required by the ASTM 1527-13 standard, a Phase I ESA consists of four components which are being described below:

Records Review

Review of property deeds, titles, and any other pertinent legal record. Review of available records, including permitting, topographic maps, geological maps, aerial pictures and historical records. The database of the U.S. Environmental Protection Agency and the Puerto Rico Environmental Quality Board were reviewed to determine if any regulated facilities were located at the subject property or in its vicinity.

Site Reconnaissance

A site reconnaissance of the subject property and adjoining properties will be conducted to identify if there is the presence of any Recognized Environmental Condition.

Interviews

CTS Group, Inc. will perform a series of interviews with present and past owners of the subject property, neighbors and owners of adjoining property, and local and state government officials.

Preparation of final Report

This Final Report will reveal the Environmental Professional evaluation of findings after conducting an ASTM E1527-13 Phase I ESA at the subject property.

2.3 Significant Assumptions

CTS Group, Inc. assumes that the reports, documents and general and specific information provided by the client, government agencies and the people interviewed while conducting this study are complete and reliable. No other significant assumptions have been made while performing this Phase I ESA.

2.4 Limitations and Exceptions

The purpose of an environmental site assessment is to identify actual or potential “recognized environmental conditions” that may result in liability or land use restrictions. The ASTM 1527-13 Environmental Site Assessment is the minimum

standard for environmental due diligence in the commercial real estate industry and currently meet the standard for All Appropriate Inquiry under the Small Business Liability Relief and Brownfield's redevelopment Act of 2002. A diligent effort in accordance with generally accepted good commercial and customary standards and practice was undertaken to identify the "recognized environmental conditions" that might affect the redevelopment project. However, the identification of old hazardous waste sites is an evolving process; therefore, CTS Group, Inc. cannot state with absolute certainty that no other potentially hazardous waste sites are located in the area. This assessment reflects the normal degree of care and skill that is ordinarily exercised by environmental professionals conducting business in this or similar localities. In no event, shall CTS Group, Inc., or its employees be liable for any damages, injury, loss, cost, or expenses whatsoever arising in connection with the use or reliance on the information contained in this report, except as otherwise provided by law. As part of this assessment, CTS Group, Inc. submitted requests for information via the Freedom of Information Act (FOIA) and Office of Public Records Act (OPRA) to various governmental agencies. As of the preparation of this report, these requests may not have been fulfilled. The conclusions of this report are subject to change upon receipt of a response from these FOIA and OPRA requests.

Where access to portions of the subject property or to structures on the site was unavailable or limited, CTS Group, Inc. renders no opinion as to the presence of direct or indirect evidence relating to petroleum substances, hazardous substances or both in that portion of the site or structure. In addition, CTS Group, Inc. renders no opinion as to the presence of indirect evidence related to hazardous material or oil where direct observation of the ground surface, interior walls, floors, ceilings, or a structure is obstructed by objects or materials, including snow, covering on or over these surfaces.

The information in this report is based on the review of available historical documents, governmental databases, deed records, aerial photographs, governmental environmental files, conducted interviews with past/present owners and neighbors, and a site reconnaissance of the area by the environmental professional. The result of this assessment, as written in this report, is valid as of the date of report. The assessment does not include sampling of soil, rock, groundwater, surface water, or air. Mold, indoor air quality, asbestos, and lead-based paint surveys are excluded from the scope of this report.

2.5 *Special Terms and Conditions*

The Phase I ESA was conducted in conformance with the scope and limitations of

ASTM designation E 1527-13 standard practice. There are no special terms or conditions to the content of the report that are in addition to the scope outlined in Section 2.2.

Authorization to perform this assessment and instructions as to the location of the subject property, access, and an explanation of the subject property and facilities to be assessed were provided by Mr. Carlos Gonzalez in his capacity as president of TFS Housing, LLC.

The following is a list of terminology that is used throughout this report and therefore should be defined:

Actual Knowledge: The knowledge actually possessed by an individual who is a real person, rather than an entity.

Adjoining Properties: Any real property or properties the border of which is contiguous or partially contiguous with that of the subject property, or that would be contiguous or partially contiguous with that of the subject property but for a street, road, or another public thoroughfare separating them.

All Appropriate Inquiry: That inquiry constituting "all appropriate inquiry into previous ownership and uses of the subject property consistent with good commercial or customary practice", as defined in CERCLA, 42 U.S.C 9607 (b)(3), 9607 (q); and 9607 (r), assuming compliance with other elements of the defense.

Activity and Use Limitation (AUL): Legal or physical restrictions or limitations on the use of, or access to, a site or facility: (1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil, soil vapor, groundwater, and/or surface water on the property, or (2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment.

Area of Concern (AOC) (defined by the Approximate Minimum Search Distance): Records to be reviewed pertain to the *TP* and to properties within the *AOC* (that is, within the *approximate minimum search distance*). The *AOC* is one third of a mile around the *TP*.

Business Environmental Risk: A risk which can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in the E 1527-13 practice. Considerations of business environmental risk may involve addressing one or more non-scope considerations.

Chemical(s) of Concern (COC): Chemical that is present in the subsurface environment and can potentially migrate as a vapor into the sub-surface of the TP.

Controlled Recognized Environmental Condition: A REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a NFA letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls).

Data Failure: A failure to achieve the historical research objectives of ASTM 1527-13 even after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap.

Data Gap: A lack of or inability to obtain information required by ASTM 1527-13 despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by the ASTM 1527-13, including, but not limited to, site reconnaissance (for example, an inability to conduct the subject property visit) and interviews (for example, an inability to interview the key subject property manager, regulatory officials, etc.).

De minimis condition: A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are neither, recognized environmental conditions nor controlled recognized environmental conditions.

Due Diligence: The process of inquiring into the environmental characteristics of a parcel of commercial real estate or other conditions, usually in connection with a property transaction.

Environmental Professional: A person meeting the education, training and experience requirements, as set forth in the ASTM E 1527-13 practice.

Hazardous Substance: A substance defined as a hazardous substance pursuant to CERCLA 42 USC 9601(14), as interpreted by USEPA regulations and the courts.

Historical Recognized Environmental Condition: A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without

subjecting the property to any required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls). Before calling the past release and HREC, the EP must determine whether the past release is a REC at the time the Phase I ESA is conducted (e.g., if there has been a change in the regulatory criteria). If the EP considers this past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

Migrate/ Migration: Refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

Obvious: That which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer while visually or physically observing the subject property.

Occupants: Those tenants, subtenants, or other persons or entities using the subject property or a portion of the subject property.

Owner: Generally, the fee owner of record of the subject property.

Practically Reviewable: Information that is practically reviewable means that the information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the subject property without the need for extraordinary analysis of irrelevant data.

Reasonable Ascertainable: Information that is (1) publicly available, (2) obtainable from its source within reasonable time and cost constraints, and (3) practically reviewable.

Recognized Environmental Conditions: The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

Subject Property: The real estate property that is the subject of this ESA.

Target Property (TP): Property involved in the real estate transaction that is the subject of the VES defined by this guide.

User: The party seeking to use Practice E 1527-13 to perform an environmental site assessment of the subject property.

Vapor Encroachment Condition (VEC): Presence or likely presence of COC vapors in the subsurface of the TP caused by the release of vapors from contaminated soil or groundwater or both either on or near the TP as identified by the *VES*.

2.6 *User Reliance*

While conducting a Phase I – Environmental Site Assessments, as recommended by ASTM E-1527-13, an environmental professional is not required to verify independently the information provided but may rely on information provided unless he or she has actual knowledge that certain information is incorrect or unless it is obvious that certain information is incorrect based on other information obtained in the Phase I Environmental Site Assessment or otherwise actually known to the environmental professional. This Phase I ESA was conducted solely for the purpose of providing information to the client. The findings, opinions, conclusions and other information provided in this report may be released to third parties. However, third parties shall have no right to rely on any information contained in this report, and CTS Group, Inc. shall have no liability to third parties in any manner whatsoever.

3.0 USER PROVIDED INFORMATION

3.1 *Location and Legal Description*

The subject property is located at Road PR-844, Km. 4, Cupey Ward, San Juan, Puerto Rico. The general site location is in the northeastern area of the island. For copies of the subject property's legal descriptions refer to Appendix V.

3.2 *Owner Information*

Based on the provided information, the subject property is shared as follows:

3.3 *Title and Judicial Records*

- Based on Property Deed # 6 signed in San Juan, Puerto Rico on January 21, 2006 in front of Public Notary Daniel Pernas Beceiro, Dorado Ocean Reef, Inc. purchased the five (5) lots of land comprising the subject property from El Combate Development, LLC.
- Based on Purchasing Option Contract signed in San Juan, Puerto Rico on September 2018, TFS Housing, LLC. Agreed to purchase the five (5) lots of land comprising the subject property from Dorado Ocean Reef, Inc.

No additional legal documents were made available to the Environmental Professional as part of this Environmental Site Assessment.

3.4 Environmental Liens or Activity and Use Limitations.

The “client/user” reports no Environmental Liens or Activity and Use Limitations that are known on the subject property. The reviewed documentation, title survey and EDR Report show no Environmental Lien or Activity and Use Limitation (AUL) in connection with the subject property.

3.5 Specialized Knowledge or Experience of the User

The “client/user” reports no specialized knowledge or experience with regards to the subject property not already discussed in this ESA report.

3.6 Actual Knowledge of the User

The “client/user” reports no actual knowledge with regards to the subject property not already discussed in this ESA report.

3.7 Reasons for Significantly Lower Purchase Price.

The client of the subject property reports no significant environmental issues or contamination concerns that may reduce the fair market value of the property. None are suspected by CTS Group Inc.

3.8 Commonly Known or Reasonably Ascertainable Information.

The client does not know of any specific chemicals that are present or once were present at the subject property.

The client does not know of any spills or other chemical releases that have taken place at the subject property.

The client does not know of any environmental cleanups that have taken place at the subject property.

In general, the client is not aware of any commonly known or reasonably ascertainable information that can be used to identify a recognized environmental condition in connection with the subject property.

3.9 Reason for Performing Phase I

The objective of performing this Phase I Environmental Site Assessment at the subject property is to identify any recognized environmental condition in connection with the present and past operations of the subject property and the neighboring business. The scope of this practice includes research and reporting requirements that support the

user’s ability to qualify for the LLPs. As such, sufficient documentation of all sources, records, and resources utilized in conducting the inquiry required by this practice is provided in this report.

3.10 Prior Assessments

The following environmental site assessment were performed by CTS Group at the Subject property:

Assessment Type:	Date & Project ID	RECs
ESA Phase I – ASTM 1227-13	TFS-01-019– January 22, 2019	No
ESA Phase I – ASTM 1227-13	TFS-06-020 – June 28, 2020	No

Table – 2

4.0 RECORDS REVIEWS

4.1 Standard Environmental Records Sources

CTS Group, Inc. contracted Environmental Data Resources, Inc. to perform an EDR Radius Map with Lightbox and Historical Topo Maps and Aerial Photo Search in order to comply with the Federal approximate minimum search distance as detailed in ASTM Document E-1527-13. The database search includes regulatory agency lists of known or potentially hazardous waste facilities, landfills, hazardous waste generators, and disposal facilities in addition to properties under investigation. The information provided in this report was obtained from publicly available sources. The locations of the properties listed in this report are plotted with a geographic information system (GIS) utilizing geocoding of property addresses. Updated on a monthly or quarterly basis this Report by itself may not meet the 90 days updating requirements of the ASTM standard. For this reason, CTS Group, Inc. individually reviewed each of the required Standard Environmental Record Resources found in the Standard to verify the available records including EPA and EQB internet sites and physical files. The following Federal ASTM and Non-ASTM Records were requested and verified for this purpose. (Please see EDR Report Details in the Appendix 2). All records were reviewed and verified, however, CTS Group, Inc. must emphasize that the underlined records are the requirements of the ASTM Standard to be reviewed for the approximately minimum search distance as indicated in Table - 2.

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Federal Database	Specified Search Radii	No. of Sites Identified
National Priority List (NPL)	1.0 mile	0
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.5 mile	0
CERCLIS No Further Remedial Action Planned (NFRAP)	0.25 mile	0
Corrective Action Report (CORRACTS)	1.0 mile	0
Resource Conservation and Recovery Act (RCRA) treatment, storage, and disposal facilities (TSD) list	0.5 mile	0
RCRA Generators list	0.25 mile	0
RCRA Non-Generators list	0.25 mile	0

Table – 3

Subject Property Search Result

The target property was not identified in any of the databases reviewed as part of this Environmental Site Assessment. Refer to EDR Report on Appendix I.

STANDARD ENVIRONMENTAL RECORDS	
Federal NPL site list	
NPL.....	National Priority List
Proposed NPL.....	Proposed National Priority List Sites
NPL LIENS.....	Federal Superfund Liens
Federal Delisted NPL site list	
Delisted NPL.....	National Priority List Deletions
Federal CERCLIS list	
FEDERAL FACILITY.....	Federal Facility Site Information listing
SEMS.....	Superfund Enterprise Management System
Federal CERCLIS NFRAP site list	
SEMS-ARCHIVE.....	Superfund Enterprise Management System Archive
Federal RCRA CORRACTS facilities list	
CORRACTS.....	Corrective Action Report
Federal RCRA non-CORRACTS TSD facilities list	
RCRA-TSDF.....	RCRA - Treatment, Storage and Disposal
Federal RCRA generators list	
RCRA-LQG.....	RCRA - Large Quantity Generators
RCRA-SQG.....	RCRA - Small Quantity Generators
RCRA-VSQG.....	RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)
Federal institutional controls / engineering controls registries	
LUCIS.....	Land Use Control Information System

SURROUNDING SITES: SEARCH RESULTS
 Surrounding sites were not identified.
 Unmappable (orphan) sites are not considered in the foregoing analysis.

TARGET PROPERTY SEARCH RESULTS
 The target property was not listed in any of the databases searched by EDR.

Based on the federal database included in the reviewed EDR Report, no facilities were listed in the Municipality of Bayamon under the specified search criteria. Neither the subject property nor any of the adjoining properties are on this list. Refer to EDR Report on Appendix I.

The state databases searched, and the specified search radii, are as follows:

State Database	Specified Search Radii	No. of Sites Identified
State Hazardous Waste Sites (SHWS)	1.0 mile	0
State Solid Waste Landfill Sites	0.5 mile	0
State Registered Underground Storage Tanks/ Aboveground Storage Tanks (UST's/AST's) list	0.25 mile	0
State Registered Leaking Underground Storage Tanks (LUST) list	0.5 mile	0
State Voluntary Cleanup Programs (VCP)	0.5 mile	0
Brownfields	0.5 mile	0
Local Landfill/Solid Waste Disposal Sites (SWRCY)	0.5 mile	0
Historical Service Stations	0.25 mile	0
Historical Dry Cleaners	0.25 mile	0

Table – 4

Based on the state database included in the EDR Radius Map with GeoCheck and Historical Topo Map with Aerial Photo Search, no facilities were listed under the specified search criteria. Neither the subject property nor any of the adjoining properties are listed in any of the reviewed databases. Refer to EDR Report on Appendix I.

Orphan or Unmapped Sites

Based on EDR report, the following sites were not mapped due to poor or inadequate address information:

Due to poor or inadequate address information, the following sites were not mapped. Count: 15 records.

Site Name	Database(s)
"NEW" ARMY AVIATION SUPPORT	SEMS-ARCHIVE, DOCKET HWC
VILLA NEVAREZ S/S #208	LUST
RSU LA ELECTRONICA REMOTO	LUST
CUPEY S/S #209	LUST
ESSO CO-011	LUST
COMPLEJO MEDICO SOCIAL ANTILLANA	LUST
GPR 1012	LUST
ENG. JOSE BETANCOURT	LUST
CENTERS DISEASE CONTROL	LUST
GULF # 304	LUST
GASOLINA COQUI	LUST
GULF #143	LUST
GULF # 403	LUST
BUILDING 445 & 449	LUST
CUPEY STATION AREA IMPROVEMENTS	FINDS, ECHO

None of the identified orphan sites are located in the subject property immediate vicinity. None of the Orphan Facilities represent a risk of human exposure to contamination and migration of contaminated ground water from or to the property. Neither the subject property nor any of the adjoining properties are on this list.

4.2 Regulatory Agency File and Records Review

Neither the subject property nor any of the adjoining properties were identified on one or more of the standard environmental record sources. Therefore, regulatory files and/or records associated with the above-mentioned listing do not need to be reviewed.

Adjoining Vacant Gasoline Service Station

Upon receipt of the request for additional information from R4 consultant, a letter was sent to the Puerto Rico Department of Natural and Environmental Resources on November 12, 2021 in addition to the one sent on October 12, 2021, this time requesting the review of the record for the vacant service station identified under USTID: 2-861223. The aforementioned facility is not listed as a LUST facility under the PR Environmental Quality Board LUST List, and it was not identified as a LUST site in the ERA Report. Authorization to access public records with the Puerto Rico Environmental Quality Board could take weeks even months. We do not believe, it is necessary to review the aforementioned records in order to emit professional opinion in connection with the subject property.

4.3 Additional Environmental Records Sources

Department of Natural Resources and Environment (DRNA) & US Geological Survey (USGS)

According to the DRNA and the USGS, there are no public supply wells or agricultural wells within the subject property or any of the adjoining properties. According to the

USGS Groundwater Monitoring Network there are Four (4) active monitoring wells in the Municipality of San Juan. Refer to Appendix VIII.

EQB List of Registered Petroleum Storage Tanks

Information was obtained by using Environmental Quality Board data information system. A list with all the Registered UST and LUST listed in the Municipality of Bayamon is provided in Appendix VI. Neither the subject property nor any of the adjoining properties are on this list. The EDR report does not show the presence of a LUST facility in the subject site vicinity. Refer to EDR Report on Appendix I. The review of the documentation available in the Underground Tanks Program of the PR EQB which was last updated in 2018, yielded no LUST facility in the subject property immediate vicinity. Refer to Appendix IX.

4.4 Physical Setting Source

Physical Setting Sources were obtained from the USGS, US Department of Agriculture, and visits to the subject property and its vicinity.

General Site Geographic Information

The subject property is located in the Municipality of San Juan which is part of the Bayamón-Loíza region. The Bayamón-Loíza region covers about 280 mi² in the eastern North Coast area. It is bounded to the north by the Atlantic Ocean, to the west and south by the drainage basin divide of the Río de Bayamón, and to the east and south by the drainage basin divide of the lower Río Grande de Loíza (below Lago Loíza). Included in the Bayamón-Loíza region are the Río Bayamón, Río Piedras, and lower Río Grande de Loíza drainage basins. The San Juan metropolitan area is not only the principal population center of the Bayamón-Loíza region, but also of all Puerto Rico. The northern section of the Bayamón-Loíza region consists of a coastal plain composed of deposits of sand, silt, clay, and sand muck overlying limestone formations, which form the principal aquifer. The elevation of the land surface in the coastal plain ranges from mean sea level to about 100 feet above mean sea level. An almost continuous strip of swamps and lagoons lies near the coast. The principal coastal lagoons are Laguna San José, Laguna La Torrecilla, and Laguna de Piñones. The southern part of the region is comprised mostly of the foothills of the inner uplands, which range in elevation from about 100 to 1,300 feet above mean sea level.

The principal streams flowing through the region are the Río Bayamón and Río Piedras which flow north, and the Río Grande de Loíza which flows northeast. The Río Bayamón has its headwaters in the mountainous interior of the island and flows across

a wide alluvial valley surrounded by swamp deposits near the coast. The Río Piedras, a relatively short river that has its headwaters in the foothills, flows across a wide alluvial plain and discharges into Bahía de San Juan. The Río Grande de Loíza, with headwaters in the interior of the island, is the primary source of water filling Lago Loíza (the principal water-supply reservoir for the San Juan metropolitan area), on its course to the Atlantic Ocean. According to the subject property to be appraised the required market analysis could be a Level A-B, inferred analysis, which gives emphasis to instinctive knowledge, historical data and judgment.

General Topography

The highest peaks include San Patricio at 262 feet, Hatillo at approximately 443 feet, and Magueyes at 591 feet above sea level. San Juan hydrographic system is comprised of the Puerto Nuevo and Piedras rivers. The Puerto Nuevo river flows into San Juan harbor and receives waters from the Piedras River, Muerto stream, and Margarita channel. The Piedras River rises in Caimito ward and travels from south to north, finally emptying into the Puerto Nuevo River. Its tributaries include the Buena Vista, Las Curias, Doña Ana, Los Guanos, and Guaracanal brocks. Other streams include Carraizo, Frailes, Juan, and San Antón. Las Curias Dam is located in Cupey ward. The San Juan coast includes, from east to west, Las Marias, Piedrita, Escambrón, El Morro, and La Puntilla promontories. The Piedras islet is located near Las Marias promontory and the San Jorge promontory is located near the Escambrón promontory. Guachinga islet is located on the San José lagoon. A Custom Soil Resource Report was issued by the U.S. Department of Agriculture and included in Appendix IX.

General Site and Vicinity Hydrogeology

Two principal water-bearing units are present in the Bayamón-Loíza region: an upper water-table aquifer comprised of sedimentary rocks of Tertiary age and surficial deposits of Quaternary age; and a lower confined aquifer comprised mainly of sedimentary rocks of Tertiary age. The two units are separated by the upper member of the Cibao Formation, which acts as a confining unit. The upper aquifer occurs in the uppermost rocks overlying the upper member of the Cibao Formation, the Aguada and Aymamón Limestones, and alluvial deposits. The Aguada and Aymamón Limestones are eroded and covered with alluvial deposits, and the upper part of the Cibao Formation becomes thinner near San Juan. As a consequence, the available freshwater in the upper aquifer around San Juan largely resides in surficial deposits. For the most part, according to Rodríguez-Martínez (1991, p. 12), the upper aquifer is absent in the San Juan metropolitan area, and where present, is thin and contains brackish water. The thickness of the upper aquifer is limited by the location of the saline-freshwater

interface and the top of the Cibao Formation.

Ground-Water Levels & Movements

Regional ground-water flow in the upper and lower aquifers within the Bayamón-Loíza region is northward from surficial exposures of the formations of Tertiary age, where the recharge occurs, to eventually discharge into swamps and lagoons along the coast. Ground water also moves locally towards the main stream systems of the Río Bayamón, Río Piedras, and Río Grande de Loíza. Higher ground-water levels are observed during the rainy season, which occurs from August through November and from April to May, than during the dry season. The difference between the highest and the lowest water-level altitude during 1987 in one observation well near Cataño and another near San Juan was about 4 and 9 feet, respectively. Recharge to the water-bearing formations in the area is primarily from rainfall, but also from infiltration of streamflow. In the highly urbanized San Juan metropolitan area another possible source of recharge to the aquifer is leakage from water and sewer lines (Anderson, 1976, p.15). According to Anderson (1976, p. 27), the Río Bayamón recharges the alluvium and the Tertiary age aquifers when ground-water levels are low, generally from January to April. During the rest of the year the aquifer either is in balance with the stream or contributes water to it.

4.5 *Historical Use of the Property*

Based on the information provided to the Environmental Professional, the subject property consists of Five (5) vacant undeveloped lots of land with no commercial use on record. No other commercial use was identified at the subject property; neither is suspected by CTS Group, Inc.

4.6 *Use of Properties in Surrounding Area*

Aerial photos regarding the adjoining properties were reviewed, and the information collected by interviewing the subject property owner and subject property neighbors indicates that the subject property immediate neighborhood can be defined as suburban mixed residential, light industrial and commercial which enjoys an adequate position close to the intersection of Roads PR-844 and SR Road PR-199 (Las Cumbres Avenues). The residential properties facing the subject's strip are in transition to office and light industrial use.

4.7 *Standard Historical Sources*

Aerial Photographs

Aerial photographs were obtained using the Google Professional Server. The images

taken from an aerial platform had sufficient resolution to allow identification of development and activities of areas encompassing the subject property. The reviewed material included images from 1967. Based on the available aerial photographs, the commercial activities in the subject property vicinity has not experienced significant changes over the past two decades. On the other hand, there have been a noticeable increase of residential use of the surrounding areas.

Fire Insurance Maps

No fire insurance maps were reviewed as part of this investigation.

Property Tax Files

No property tax information was made available to the environmental professional.

Recorded Land Title Records and Property Deeds

- Based on Property Deed # 6 signed in San Juan, Puerto Rico on January 21, 2006 in front of Public Notary Daniel Pernas Beceiro, Dorado Ocean Reef, Inc. purchased the five (5) lots of land comprising the subject property from El Combate Development, LLC.
- Based on Purchasing Option Contract signed in San Juan, Puerto Rico on September 2018, TFS Housing, LLC. Agreed to purchase the five (5) lots of land comprising the subject property from Dorado Ocean Reef, Inc.

No other land title records were reviewed by the Environmental Professional as part of this Environmental Site Assessment.

USGS Topographic Maps

The USGS Topographic Map of the subject property vicinity was reviewed. Other than the commercial use listed under sections 4.5 and 4.6, no additional commercial used was identified in connection with the subject property or any of the adjoining properties.

Local Street Directories

Local street directories were reviewed as part of this assessment in order to identify any prior commercial use of the subject property and the adjoining properties. Industrial and manufacturing activities were identified in the subject property immediate vicinity. The review of the local street directories does not reveal the existence of any commercial activity that would suggest the storage of chemical substances and the use

of insecticides and any other agricultural related chemicals in any of the adjoining properties.

Building Department Records

No building department records were reviewed as part of this assessment.

Zoning/Land Use Records

According to the Office of Urban Planning of the Autonomous Municipality of San Juan the subject property is located on a Specially Protected Rustic Soil (SREP) zoning district with some areas designated as Interior Forest (B-1) zoning district. This zoning permits the intended use of the property. A complete zoning compliance assessment is beyond the scope of this Environmental Site Assessment.

Other Historical Sources

No other historical sources were reviewed as part of this assessment.

5.0 SITE RECONNAISSANCE

5.1 *Methodology and Limiting Conditions*

The subject property was inspected on October 19, 2021 by EP Ihosvany Negret. The methodology used for the site reconnaissance of the subject property consisted of visually inspecting the subject property interior and surrounding areas. The purpose of this visit was to identify potential recognized environmental conditions and/or any potential source of environmental impairment. There were not physical obstructions such as adjacent buildings, bodies of water, asphalt, or other paved areas, and any other physical constraints (for example, snow, rain).

5.2 *General Site Setting*

All areas of the subject property were accessible at the time of the inspection. There were no visual or physical obstructions of the subject property. During the inspection, an interior and exterior walk-through of the subject property was performed. The exteriors of adjoining properties were visually evaluated to identify any Recognized Environmental Condition.

General Description of Structures

The subject property refers to an undeveloped vacant lot of land.

Utilities

The Puerto Rico Electrical Power Authority (PREPA) provides electrical power to the subject’s immediate neighborhood. The Puerto Rico Aqueducts and Sewers Authority (PRASA) provide potable water, to the area, and the Puerto Rico Telephone Company provides telephone services. There are no other utilities available at the subject property. The subject property vicinity has the typical and necessary government services available, including fire and police protection provided by the Commonwealth government, street cleaning provided by the municipal government, and postal service provided by the federal government. Garbage pick-up is usually contracted with a private company, which is a typical condition for this type of facility. Public transportation is adequate and is available by taxis, buses and mini-vans at reasonable fares.

Roads

North	South	East	West
SR PR-199 (Las Cumbres Ave.)	Rd. Camino Los Gonzalez	Road PR-844	PR-176 (Victor M. Laviosa Ave.)

Floods

The subject property is located in an area Zone X, outside the 1% annual chance of flood area as per FEMA Emergency Flood Map No. 72000C0735H with an effective date as of April 19, 2005. The Zone X is area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X may have pond prone areas and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood. The environmental professional, however, is not qualified to determine the flooding conditions of the subject site. The Subject Site is assumed to be free of adverse floodable conditions that might affect its intended development, and no liability or responsibility is assumed in this respect. Further analysis of the flood insurance or flood certification is beyond the scope of this Environmental Assessment.

Landfill, Dumping, Disturbed Soil

There are not landfills, dumping, or disturbed soil at the subject property or adjoining properties.

5.3 *Current Use(s) of the Property*

The subject property is currently vacant.

5.4 *Past Use(s) of the Property*

Based on the information provided to the Environmental Professional, the subject property consists of Five (5) vacant undeveloped lots of land with no commercial use on record. No other commercial use was identified at the subject property; neither is suspected by CTS Group, Inc.

5.5 *Current Uses of Adjoining Properties*

The subject property is surrounded by residential properties with no commercial use on record. Due to the large boundary line resulting from combining all five (5) lots comprising the subject property it is impossible to list every single adjoining property. It is possible that in one or several locations the SP is adjoined by a property operating a small business but the Environmental Professional did not observe or obtained any information connecting any of the subject properties with an environmentally sensitive operation that could result in a potential REC as defined in Section 2.5 of this report.

5.6 *Past Uses of Adjoining Properties*

The subject property is surrounded by residential properties with no commercial use on record. Due to the large boundary line resulting from combining all five (5) lots comprising the subject property it is impossible to list every single adjoining property. It is possible that in one or several locations the SP is adjoined by a property operating a small business but the Environmental Professional did not observe or obtained any information connecting any of the subject properties with an environmentally sensitive operation that could result in a potential REC as defined in Section 2.5 of this report.

5.7 *Historical Uses in the Surrounding Area*

The subject property surrounding area is mostly residential with easy access to schools, supermarkets, gasoline service stations and some light industrial and other commercial operations. No additional historical use information was identified in connection with any of the adjoining properties.

5.8 *Interior and Exterior Observations*

Hazardous Substances and Petroleum Products in Connection with Identified Uses.

No hazardous substances and petroleum products were identified in connection with identified use of the subject property.

Above-ground Storage Tanks

No AST facilities were observed or reported at the subject property.

Underground Storage Tanks

No UST facilities were observed or reported at the subject property.

Power Generators

No power generators were observed at the subject property during the site reconnaissance.

Odors

No strong, pungent, or noxious odors were identified at the subject property during the site reconnaissance.

Pools of Liquid

No standing surface water, pools or sumps containing liquids likely to be hazardous substances or petroleum products were observed at the subject property during the site reconnaissance.

Drums

No drums suspected to have residual hydrocarbon products or any other chemical were observed at the subject property.

Hazardous Substance and Petroleum Products Containers (Not Necessarily in Connection with Identified Uses)

No hazardous substance and/or petroleum products containers were observed at the subject property.

Unidentified Substance Containers

No unidentified substance containers were observed at the subject property.

PCBs

During the site inspection, we did not identify any visual indications of equipment likely to contain PCB.

Interior Observations:*Heating/Cooling*

No heating or cooling system was observed at the subject property during the site reconnaissance.

Stains or Corrosion

No stains or signs of corrosion was observed at the subject property during the site reconnaissance.

Drains and Sumps

No drains or sumps were observed at the subject property during the site reconnaissance.

Exterior Observations:*Pits, Ponds, or Lagoons*

No pits, ponds, or lagoons were observed at the subject property during the site reconnaissance.

Stained Soil or Pavement

No stained soil or pavement were observed at the subject property during the site reconnaissance.

Stressed Vegetation

No stressed vegetation was observed at the subject property during the site reconnaissance.

Solid Waste

No trash construction debris, demolition debris, or other solid waste disposal, or mounds or depressions suggesting trash or other solid waste disposal were observed at the subject property during the site reconnaissance.

Wastewater

No wastewater or any discharge into a drain, ditch, underground injection system, or stream on or adjacent to the property was observed. The subject property is fully connected to the Municipal Sewer System.

Wells

No dry wells, irrigation wells, injection wells, abandoned wells, or other wells were observed at the subject property.

Septic Systems

No Septic Systems were observed or reported during the site reconnaissance.

5.9 Vapor Encroachment Screen (VES)

This Phase I ESA also included an initial Vapor Encroachment Screening (VES) to determine if a Vapor Encroachment Condition (VEC) is identified for the Target Property TP (that is, the presence or likely presence of Chemicals of Concern (COC) vapors in the subsurface of the TP caused by the release of vapors from contaminated soil and/or groundwater either on or near the TP as identified by the Tier 1 procedure of ASTM E2600-15.

No sources of Petroleum Hydrocarbon COCs were identified within the specified Area of Concern of 528 ft. from the subject property. No source of volatile/semi volatile hazardous COCs were identified in the proposed Area of Concern.

5.10 Out of Scope Considerations

Following are several non-scope considerations that the user may want to assess in connection with *commercial real estate*. No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list of non-scope considerations is not intended to be all-inclusive:

Wetlands/Flood Plain

No evidence of wetlands was noted on the subject property. The vicinity surrounding the Subject Property was evaluated using U.S. Fish and Wildlife Service Natural Wetland Inventory. A copy of the National Wetland Inventory for the subject property vicinity issued by the U.S. Fish and Wildlife Service is included in this report. The current operations at the subject property are believed to cause no adverse impact to the wetlands identified in the map. The subject property is located in an area Zone X, outside the 1% annual chance of flood area as per FEMA Emergency Flood Map No. 72000C0735H with an effective date as of April 19, 2005. The Zone X is area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X may have pond prone areas and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood. The

environmental professional, however, is not qualified to determine the flooding conditions of the subject site. The Subject Site is assumed to be free of adverse floodable conditions that might affect its intended development, and no liability or responsibility is assumed in this respect. Further analysis of the flood insurance or flood certification is beyond the scope of this Environmental Assessment.

Endangered Species

Under the Endangered Species Act (ESA), the government protects endangered and threatened plants and animals (listed species) and their habitats. The presence of listed species can restrict use of property to ensure that the proposed or current activities do not adversely affect endangered or threatened species as well as their critical habitats. Based on a letter issued on February 13, 2017, the Department of Natural and Environmental Resources of Puerto Rico has no objection to the proposed development.

Lead-Based Paint

The Consumer Product Safety Commission (CPSC) prohibited use of lead in paint for residential use in 1978 in concentrations greater than 0.06 percent lead by weight. Since CERCLA authorizes EPA to address releases of hazardous substances into the environment, the agency has limited authority to use the federal Superfund program to address exposure from building interior LBP. In limited circumstances, EPA may use its CERCLA authority to conduct response actions for soils contaminated by a release of lead contaminated paint from building exteriors that pose a lead hazard and to prevent recontamination of soils that have been remediated. The age of the structure does not suggest that LBP is present in any of the facility. CTS Group, did not perform a LBP inspection at the premises, therefore, a professional opinion cannot be offered on that regard.

Asbestos Containing Materials (ACBM's)

National Emission Standards for Hazardous Air Pollutants (NESHAP) and PR EQB regulations require sampling potential ACM prior to demolition or extensive renovation, regardless of the date of construction; therefore, if such activities are planned, it may be required to conduct a survey of the entire facility, or that portion slated for renovation or demolition, before initiating such destructive activities. That survey should include an assessment of all subject building materials, including those in areas which are normally inaccessible. Any material found to be ACM should be handled in accordance with applicable regulations. CTS Group, did not perform an

ACM inspection at the premises, therefore, a professional opinion cannot be offered on that regard.

Microbial Contamination (Mold)

A comprehensive mold survey was beyond the scope of this assessment; however, during the assessment, no visual evidence of active water or mold damage was observed in the areas inspected by CTS Group, Inc.

Radon

Radon gas is a product of the decay series that begins with uranium. Radon is produced directly from radium, which can be commonly found in bedrock that contains black shale and/or granite. Radon gas can migrate through the ground and enter buildings through porous concrete or fractures. Radon tends to accumulate in poorly ventilated basements. Long-term exposure to radon has been associated with lung cancer. The EPA Map of Radon Zones does not provide a map for Puerto Rico. CTS Group, Inc. did not perform a radon test at the subject property.

Lead in Drinking Water

CTS Group, Inc. researched information pertaining to the source and the regulatory compliance of the drinking water supplied to the subject property. The subject property receives its drinking water from the Puerto Rico Aqueduct and Sewer Authority (PRASA). According to the PRASA's website, 100 % of its water is tested before it enters the distribution system. The water supplied to the Subject Property vicinity reportedly meets federal and state drinking water standards. CTS Group, Inc. did not perform a Lead/Copper in Drinking Water sampling at the subject property.

Indoor Air Quality

Indoor pollution sources that release gases or particles into the air are the primary cause of indoor air quality problems in homes. Inadequate ventilation can increase indoor pollutant levels by not bringing in enough outdoor air to dilute emissions from indoor sources and by not carrying indoor air pollutants out of the home. High temperature and humidity levels can also increase concentrations of some pollutants. Due to the fact that the subject property is a vacant parcel of land with no structures Indoor Air Quality guidelines does not apply in this case. Ambient air quality related to releases of hazardous substances or petroleum products was analyzed as part of a Vapor Encroachment Screen included in section 5.9.

Noise Pollution

A Noise Survey was not performed as part of this Environmental Site Assessment. No information was provided to the Environmental Professional on whether or not a Noise Survey has been performed at the premises.

6.0 INTERVIEWS AND QUESTIONNAIRES

6.1 *User/client questionnaire*

Refer to Appendix X for a copy of the client/user questionnaire.

6.2 *Past owners and/or past occupants Questionnaire*

The subject property past owners were not available to be interviewed. Based on the information collected by interviewing local government officials, present owner and neighboring business owners there is no reason to be believed that the subject property was used to store any regulated chemicals.

6.3 *Present owner and/or site manager interview*

Refer to Appendix X for a copy of the client/user questionnaire.

6.4 *Government Official(s) Interview (s)*

The Municipality of San Juan was contacted in order to corroborate the information provided previously regarding any environmental incident or known condition related to the Subject Property and surrounding properties. We were able to contact engineer Maria Burgos Figueroa director of the Public Works Department. Mrs. Burgos indicated that there is not information in record connecting the subject and adjoining properties with any incident or violation that would result in the presence of a Recognized Environmental Condition. Mr. Jose E. Machuca sub-director of the Office for Emergency Management was also interviewed, and based on his observations the situation and condition of the subject property and the adjoining property remain the same since he was last interviewed. Based on Mr. Machuca, there is not record in his department connecting the Subject Property with any environmentally related incident or violation that will result in a risk for the human health and/or the presence of contaminants at the subject property. A letter was sent on October 12, 2021 to the Puerto Rico Environmental Quality Board requesting information regarding any environmentally related incident or violation in connection with the commercial operations of the subject property and the rest of the business in the subject's immediate vicinity. As of the completion of this report, CTS Group, Inc. has not yet received a response to the letter sent to the PR EQB requesting information (Copy of the

communication is included in Appendix X of this report. No other responsive records have been received. Responses from agencies not yet received will be forwarded to TFS Housing, LLC. upon receipt with recommendations. After reviewing the available documentation in the U.S. EPA and the PR Environmental Quality Board's Underground Storage Tank Program in connection with the subject property, no information was found that would affect the professional opinion issued in this report.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of an undeveloped property comprised of 5 vacant lots of land located at Road PR-844, Km. 4, Cupey Ward, San Juan, Puerto Rico, the property. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed no recognized environmental condition in connection with the subject property. Any exception to, or deletions from, this practice are described in Section 13.0 of this report. The Findings, Opinions, and Conclusion sections of this report are based on sections 12.5, 12.6, and 12.8 of ASTM E 1527-13, respectively.

It is our professional opinion that due to the fact that no recognized environmental conditions were identified during this assessment, there is no need to conduct any further study or testing in the subject property, unless there is a change of the current operations as describes herein. There was no Data Gap while conducting the research for this assessment that could have any significant impact in the findings described herein. Except for the limitations and exceptions discussed in Section 2.3, this Phase I ESA complies with the ASTM Standard 1527-13.

7.0 FINDINGS

The inspection of the subject property surrounding yield the following results:

- There is no evidence of oily films on standing water.
- There is no evidence of discolored and oil stained floors.
- There is no evidence of discarded chemical containers.
- There is no evidence of waste pipes, buried waste.
- There is no evidence of distressed vegetation.
- There is no presence of unusual odors.
- There is no evidence of a LUST Facility at the subject property
- There is no evidence of a LUST Facility at any of the adjoining properties.

The results of this assessment have revealed no Recognized Environmental Conditions associated with the Subject Property.

The results of this assessment have revealed no Controlled Recognized Environmental Conditions associated with the Subject Property.

The results of this assessment have revealed no Historical Recognized Environmental Conditions associated with the Subject Property.

The results of this assessment have revealed no de-minimis conditions associated with the property.

8.0 PROFESSIONAL OPINION

It is our professional opinion that due to the fact that the identified controlled recognized environmental condition does not represent a risk of human exposure to contamination and migration of contaminated ground water from or to the subject property since human exposure to contamination and the migration of potentially contaminated groundwater are under control, there is no need to conduct any further study or testing in the subject property, unless there is a change of the current conditions and/or operations as describes herein. Except for the limitations and exceptions discussed in Section 2.3, this Phase I ESA complies with the ASTM Standard 1527-13.

9.0 ADDITIONAL INVESTIGATIONS

Based on the results of this ESA Phase I there is no need to conduct further investigation at the subject property.

10.0 DATA GAPS

There was no Data Gap while conducting the research for this assessment that could have any significant impact in the findings described herein.

11.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of a vacant undeveloped commercial property located at Road PR-844, Km. 4, Cupey Ward, San Juan, Puerto Rico. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property. Any exception to, or deletions from, this practice are described in Section 13.0 of this report. The Findings, Opinions, and Conclusion sections of this report are based on sections 12.5, 12.6, and 12.8 of ASTM E 1527-13, respectively. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

12.0 RECOMMENDATIONS

No further testing is required at the subject property.

13.0 LIMITING CONDITIONS & DEVIATIONS

Any exception to, or deletions from, this practice are described in Section 13.0 of this report. The Findings, Opinions, and Conclusion sections of this report are based on sections 12.5, 12.6, and 12.8 of ASTM E 1527-13, respectively.

14.0 REFERENCES

ASTM Standards:

1. *ASTM1527-13 Standard practice for Environmental Site Assessments Phase I*
2. *E2091 Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls*
3. *E2600 Guide for Vapor Encroachment Screening on Property*
4. *Involved in Real Estate Transactions*

Federal Statutes:

1. *Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA" or "Superfund"), as amended by Superfund Amendments and Reauthorization Act of 1986 ("SARA") and Small Business Liability Relief and Brownfields Revitalization Act of 2002 ("Brownfields Amendments"), 42 U.S.C. §§9601 et seq.*
2. *Emergency Planning and Community Right-To-Know Act of 1986 ("EPCRA"), 42 U.S.C. §§11001 et seq.*
3. *Freedom of Information Act, 5 U.S.C. §552, as amended by Public Law No. 104-231, 110 Stat. 3048*

USEPA Documents:

1. *"All Appropriate Inquiries" Final Rule, 40 C.F.R. Part 312*
2. *Chapter 1 EPA, Subchapter J-Superfund, Emergency.*

15.0 ENVIRONMENTAL PROFESSIONAL STATEMENT & SIGNATURE

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR § 312” and 12.13.2. I, have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Ihosvany Negret Lapeira, MS, ME
Lead Environmental Consultant
CTS Group Inc.
Lajas, PR



Site Photographs & Aerial Views



Subject Property – Main Entrance



Subject Property – Surroundings



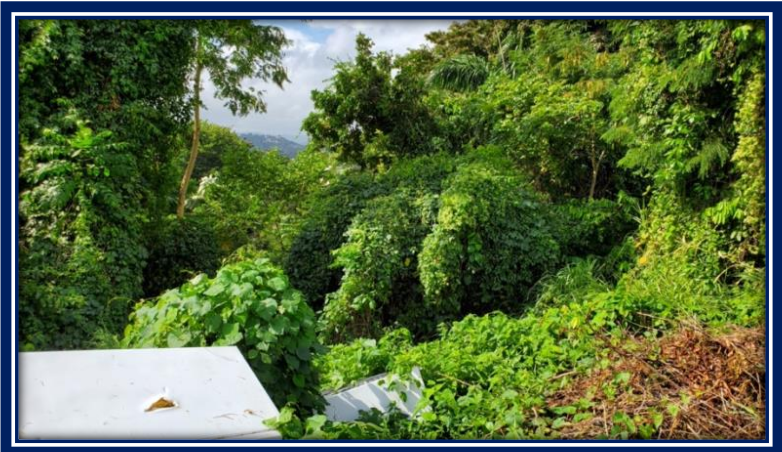
Subject Property – Surroundings



Subject Property – Northeast View



Subject Property – Southwest View



Subject Property– East to west View



Subject Property – East to west View



Subject Property – North to South



Subject Property – Access road

Adjoining Properties



Puerto Rico Aqueduct and Sewer Authority (“PRASA”) – Water Tank



North side – Apartment complex



Southwest South side adjoining properties – Residential Properties



South side adjoining property – Residential structures



South side residential properties



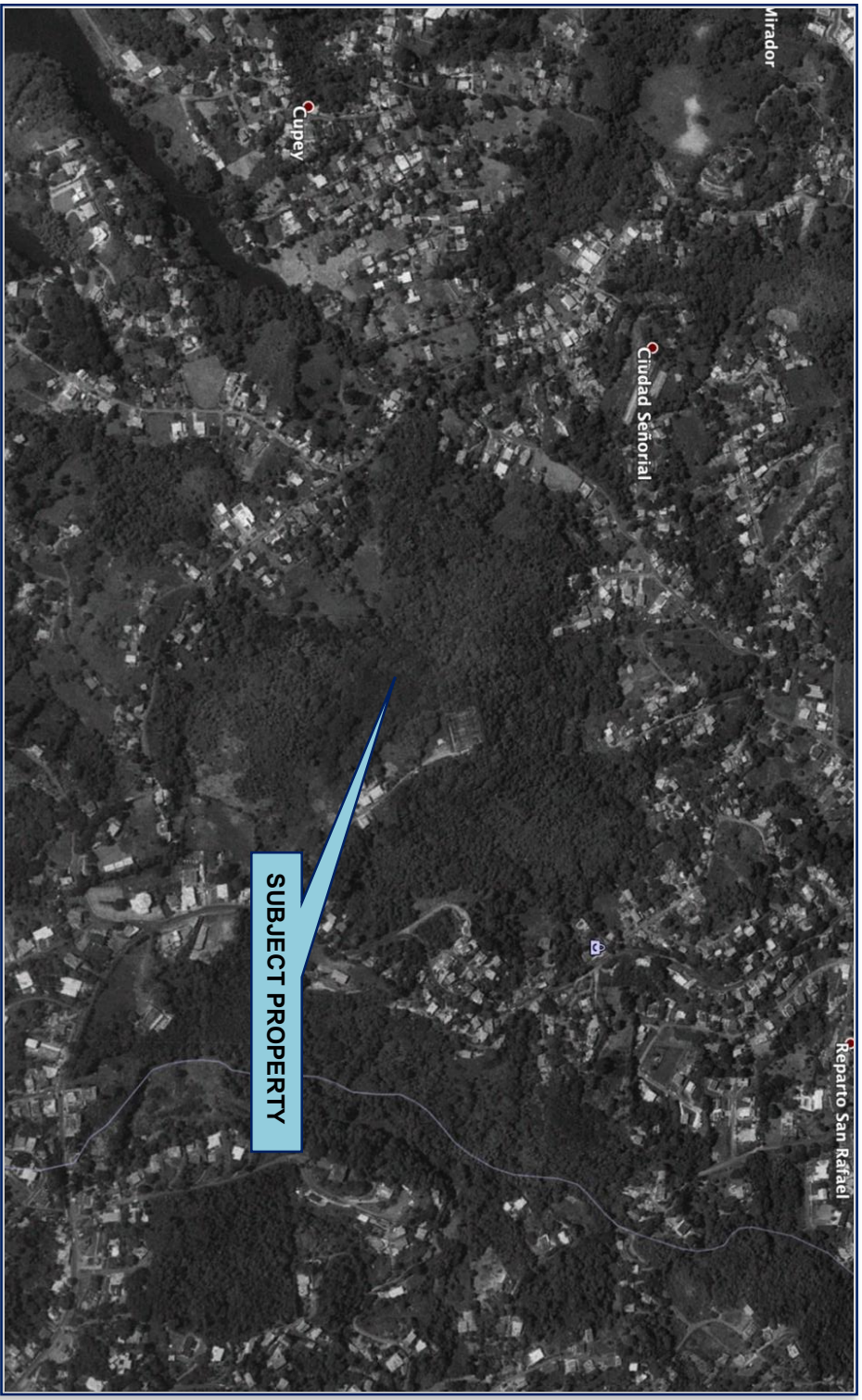
North side residential properties

Appendix A

Aerial Views and Maps

Important: The following maps and images are not to scale, they are for reference only and do not intend to provide oficial land surveying information . For the official Lot Distribution provided by the client with property boundaries and access roads refer to Appendix V of this report.

Aerial Photographs



CTS
 GROUP INC.
 ENGINEERS & ENVIRONMENTAL CONSULTANTS

Phase 1 AS-EM-11-021-13 TFS-Housing-11-021 (Reparto Cupey) San Juan, Puerto Rico

SUBJECT PROPERTY VICINITY
 AERIAL VIEW – 1995
 GOOGLE EARTH

TFS HOUSING, LLC.
 ROAD PR-844, KM. 4, CUPEY WARD
 SAN JUAN, PUERTO RICO



SUBJECT PROPERTY



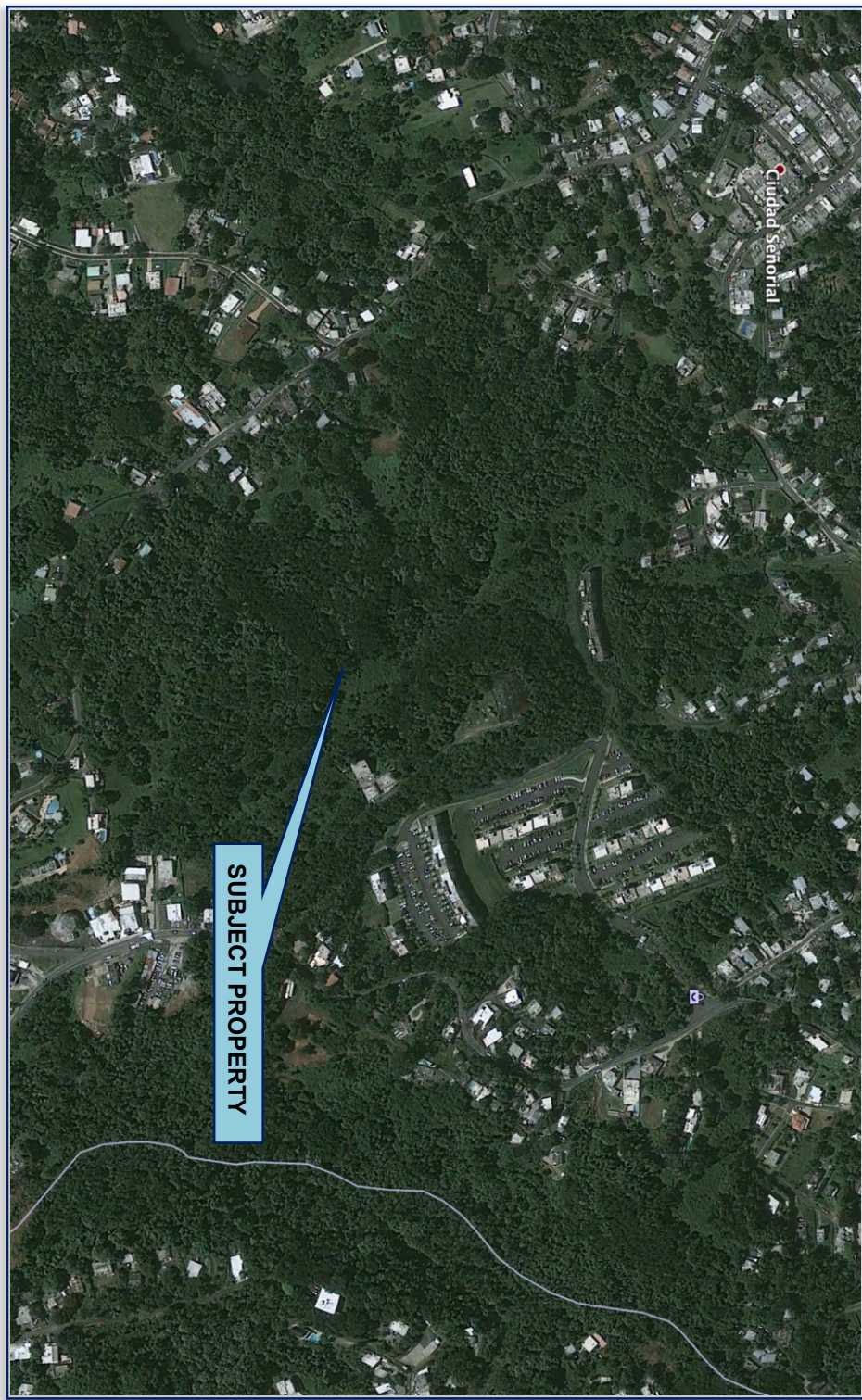
SUBJECT PROPERTY VICINITY

AERIAL VIEW – 2006
GOOGLE EARTH

TFS HOUSING, LLC.
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO



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GROUP INC.

SUBJECT PROPERTY VICINITY

AERIAL VIEW – 2009

GOOGLE EARTH

TFS HOUSING, LLC.

ROAD PR-844, KM. 4, CUPEY WARD

SAN JUAN, PUERTO RICO



CTS
 ENGINEERS & ENVIRONMENTAL CONSULTANTS

GROUP INC.

SUBJECT PROPERTY VICINITY

AERIAL VIEW – 2017

GOOGLE EARTH

TFS HOUSING, LLC.

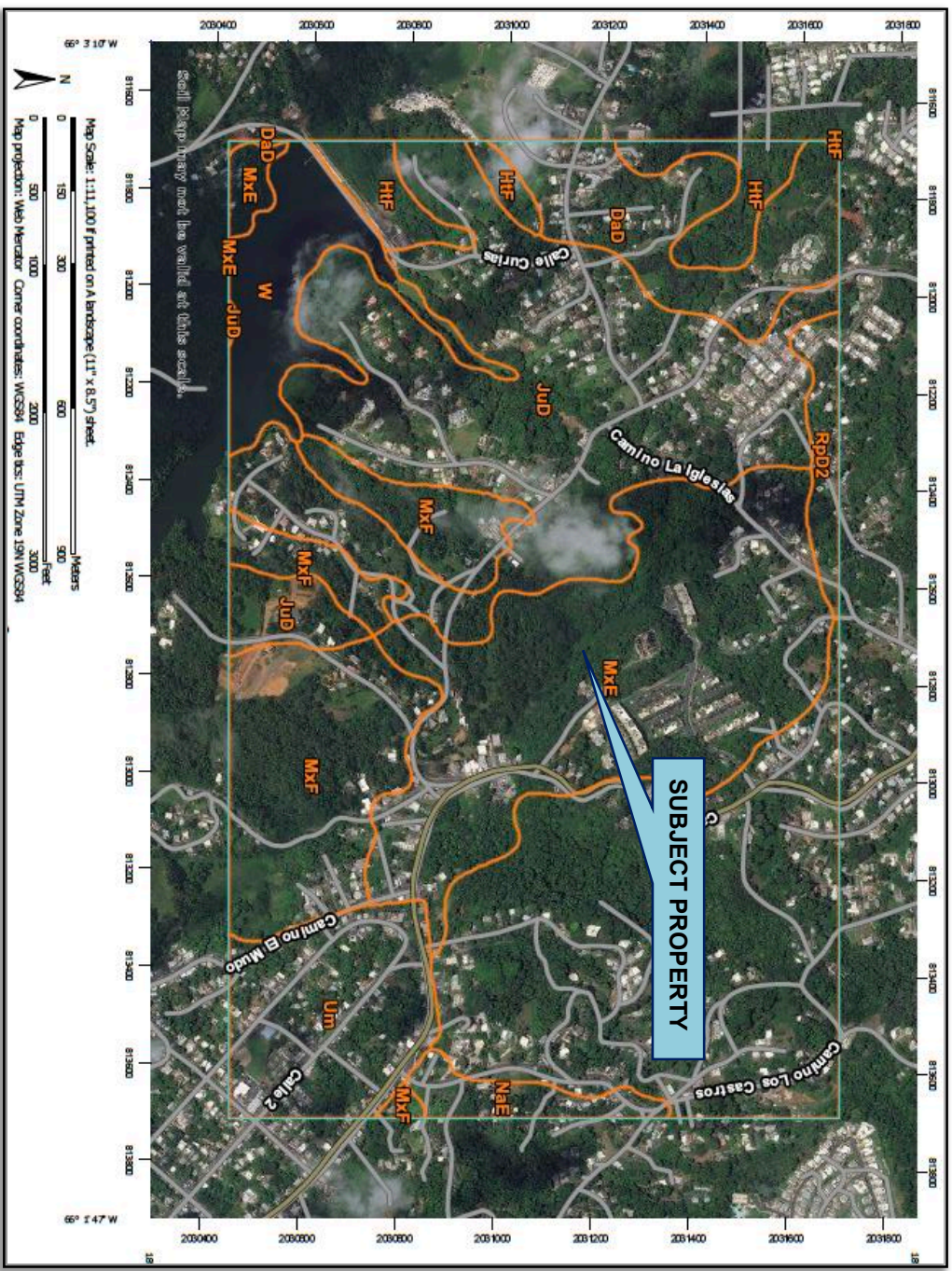
ROAD PR-844, KM. 4, CUPEY WARD

SAN JUAN, PUERTO RICO

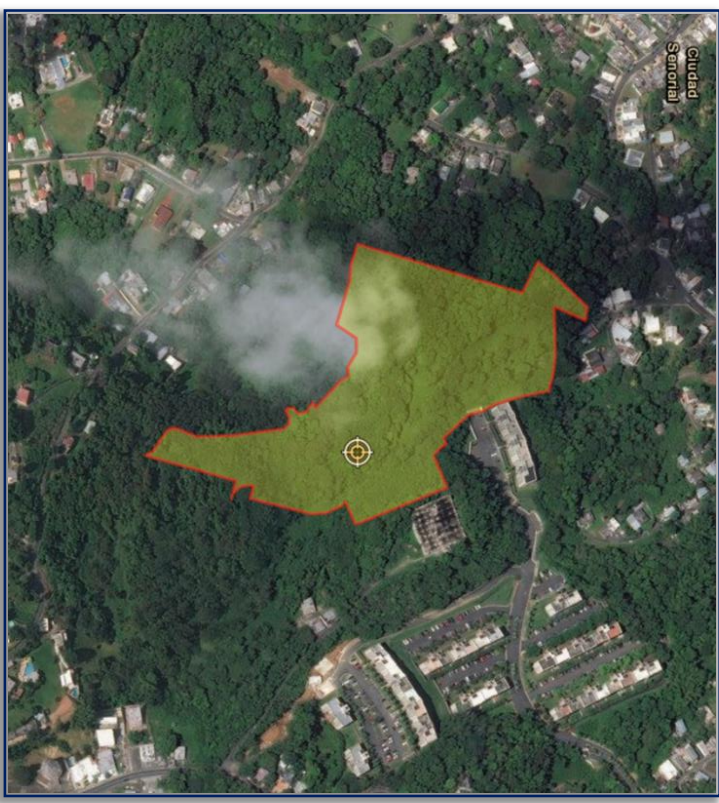
Topographic Map



USDA Soil Map



Property Tax ID Information



Catastro: 115-084-398-85




Versión Beta (sugerencias y reporte de errores son bienvenidos a alvarez_g@jlp.rg.gov
 Versión anterior)
 - En proceso: manejar varios distritos sobrepuestos

Ubicación **115-084-398-85**

Catastro: **115-084-398-85**
 Coordenadas Nad83 x: 241312.1136, y: 257030.4382
 (Lat: 18.34820133, Lon: -66.04247055)
 Ver.: Google | Yahoo

Area Aprox. (m.c.) 54079.5523
 Municipio San Juan
 Barrio Cupey

Características Ambientales
 Zona Inundabilidad X

Panel Inundabilidad 72000C0735J
 Floodway

Suelo Geológico M&E (73.5%) , JUD (26.5%)

Calificación y Clasificación de Suelo
 Clasificación Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
 Calificación Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.

Mapas de Calificación San Juan
 Distrito Sobrepuesto undefined
 Zona Histórica
 Sitio Histórico

Reglamento Aplicable • Reglamento POT San Juan
 Vigencia de Geodato de (Data no disponible)
 Calificación





Catastro: 115-084-398-86



Version Beta (sugerencias y reporte de errores son bienvenidos a alvarez_0@lp.p.r.gov)
 Version anterior
 - En proceso: manejar varios distritos sobrepuestos

Ubicación	115-084-398-86
Catastro	
Coordenadas Nad83	X: 241518.7203, Y: 256904.3245 (Lat: 18.34703794, Lon: -66.04051837)
Ver: Google Yahoo	
Area Aprox. (m.c.)	24279.944
Municipio	San Juan
Barrio	Cupey
Características Ambientales	<input checked="" type="checkbox"/>
Zona Inundabilidad	<input type="checkbox"/>
Panel Inundabilidad	72000C0735J
Floodway	
Suelo Geológico	M&E (99.9%) <input type="checkbox"/> , JUD (0.5%) <input type="checkbox"/>
Calificación y Clasificación de Suelo	
Calificación	Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
Mapas de Calificación	San Juan <input type="checkbox"/>
Distrito Sobrepuesto	undefined
Zona Histórica	
Sito Histórico	
Reglamento Aplicable	• Reglamento POT San Juan
Vigencia de Geodato de (Data no disponible)	
Calificación	



PROPERTY TAX ID INFORMATION
SOURCE: PR PLANNING BOARD

TFS HOUSING, LLC.
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO



Catastro: 115-084-398-83



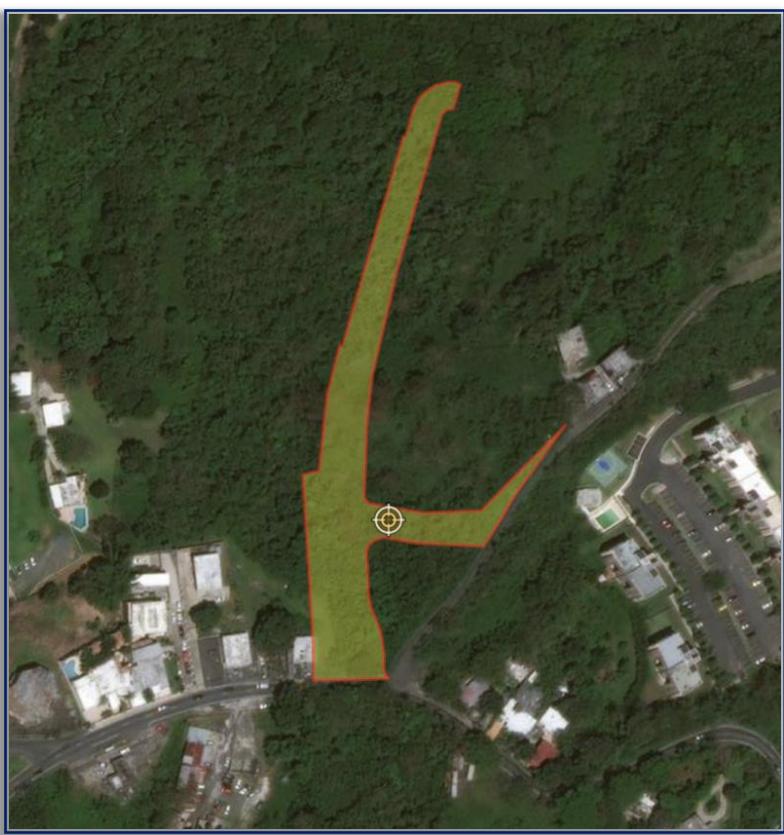
Versión Beta (sugerencias y reporte de errores son bienvenidos a alvarez_o@p.dr.gov
 Versión anterior)
 - En proceso: manejar varios distritos sobrepuestos

Ubicación	115-084-398-83
Catastro	
Coordenadas Nads3	X: 241653.7593, Y: 256885.5160 (Lat: 18.34689539, Lon: -66.03924113) Ver: Google Yahoo
Area Aprox. (m.c.)	3842.1435
Municipio	San Juan
Barrio	Cupey
Zona Inundabilidad	X
Panel Inundabilidad	72000C0735J
Floodway	
Suelo Geológico	MXE (Mucara clay)
Calificación y Clasificación de Suelo	Oficializacion del geodato en proceso, favor de referirse al mapa de calificacion vigente.
Calificación	Oficializacion del geodato en proceso, favor de referirse al mapa de calificacion vigente.
Mapas de Calificación	San Juan
Distrito Sobrepuesto	undefined
Zona Histórica	
Sitio Histórico	0
Reglamento Aplicable	• Reglamento POT San Juan
Vigencia de GeoDato de (Dato no disponible)	
Calificación	
Status POT	Municipio Autónomo con Jerarquía V



PROPERTY TAX ID INFORMATION
SOURCE: PR PLANNING BOARD

TFS HOUSING, LLC.
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO



Catastro: 115-084-398-86



Versión Beta (sugerencias y reporte de errores son bienvenidos a alvarez_00@ip.pr.gov
 Versión anterior)
 - En proceso: manejar varios distritos sobrepuestos

Ubicación	115-084-398-86
Catastro	
Coordenadas Nad83	X: 241517.0769, Y: 256913.6587 (Lat: -18.34714230, Lon: -66.04053372) Ver: Google Yahoo
Area Aprox. (m.c.)	20420.6456
Municipio	San Juan
Barrio	Cupey
Características Ambientales	<input checked="" type="checkbox"/>
Zona Inundabilidad	<input checked="" type="checkbox"/>
Panel Inundabilidad	72000C0735J
Floodway	
Suelo Geológico	MXE (Mucara clay)
Calificación y Clasificación de Suelo	
Clasificación	Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
Calificación	Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
Mapas de Calificación	San Juan
Distrito Sobrepuesto	undefined
Zona Histórica	
Sitio Histórico	0
Reglamento Aplicable	<ul style="list-style-type: none"> Reglamento POT San Juan
Vigencia de Geodato de (Dato no disponible)	
Calificación	
Status POT	Municipio Autónomo con Jerarquía V





Catastro: 115-084-398-87



Versión Beta (sugerencias y reporte de errores son bienvenidos a alvarez_od@pr.dcr.gov
Versión anterior)
- En proceso: manejar varios distritos sobrepuestos

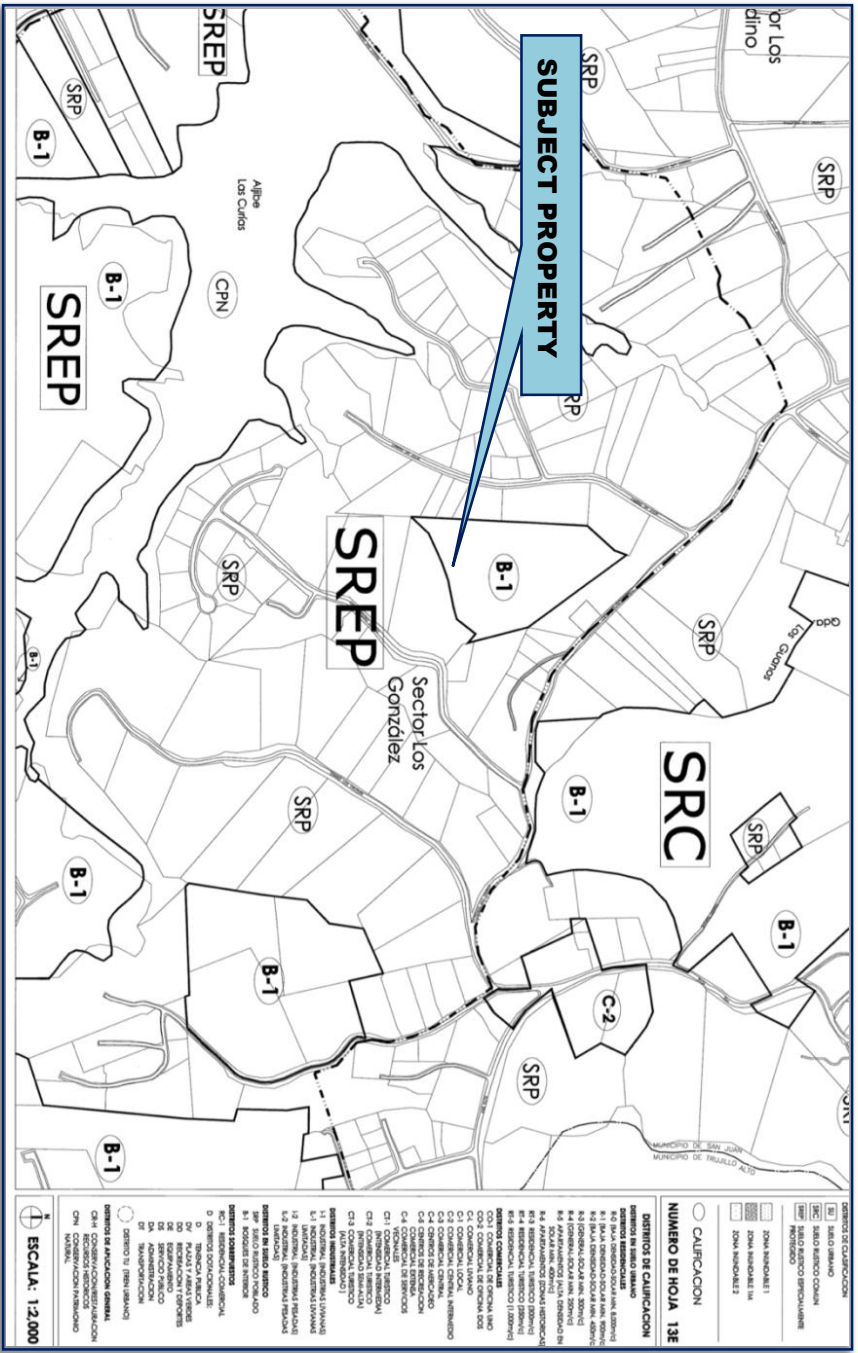
Ubicación	115-084-398-87
Catastro	115-084-398-87
Coordenadas Nad83	x: 241.488, 451.0, y: 256.766, 83.28 (Lat: 18.34581632, Lon: -96.04080754)
Ver:	509916 Yahoo
Area Aprox. (m.c.)	28032.8447
Municipio	San Juan
Barrio	Cupey
Características Ambientales	<input checked="" type="checkbox"/>
Zona Inundabilidad	<input checked="" type="checkbox"/>
Panel Inundabilidad	72000C0735J
Floodway	
Suelo Geológico	JUD (55.1%) , MxK (44.9%)
Calificación y Clasificación de Suelo	
Calificación	Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
Calificación	Oficialización del geodato en proceso, favor de referirse al mapa de calificación vigente.
Mapas de Calificación	San Juan
Distrito Sobrepuesto	undefined
Zona Histórica	
Sitio Histórico	0
Reglamento Aplicable	• Reglamento POT San Juan
Vigencia de Geodato de (Data no disponible)	
Calificación	
Status POT	Municipio Autónomo con Jerarquía V



PROPERTY TAX ID INFORMATION
SOURCE: PR PLANNING BOARD

TFS HOUSING, LLC.
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO

Zoning Map



DISTRITOS DE CALIFICACION	
	SRP - SERVICIO RESIDENCIAL ESPECIALIZADO
	SRC - SERVICIO RESIDENCIAL COMUNITARIO
	B-1 - SERVICIO RESIDENCIAL UNIFAMILIAR
	C-2 - SERVICIO RESIDENCIAL COMUNITARIO
	SREP - SERVICIO RESIDENCIAL ESPECIALIZADO
	CPN - COMERCIO GENERAL

CALIFICACION	
	SERVICIO RESIDENCIAL ESPECIALIZADO
	SERVICIO RESIDENCIAL COMUNITARIO
	SERVICIO RESIDENCIAL UNIFAMILIAR
	SERVICIO RESIDENCIAL COMUNITARIO
	SERVICIO RESIDENCIAL ESPECIALIZADO
	COMERCIO GENERAL

DISTRITOS DE CALIFICACION	
	SRP - SERVICIO RESIDENCIAL ESPECIALIZADO
	SRC - SERVICIO RESIDENCIAL COMUNITARIO
	B-1 - SERVICIO RESIDENCIAL UNIFAMILIAR
	C-2 - SERVICIO RESIDENCIAL COMUNITARIO
	SREP - SERVICIO RESIDENCIAL ESPECIALIZADO
	CPN - COMERCIO GENERAL

DISTRITOS DE CALIFICACION	
	SRP - SERVICIO RESIDENCIAL ESPECIALIZADO
	SRC - SERVICIO RESIDENCIAL COMUNITARIO
	B-1 - SERVICIO RESIDENCIAL UNIFAMILIAR
	C-2 - SERVICIO RESIDENCIAL COMUNITARIO
	SREP - SERVICIO RESIDENCIAL ESPECIALIZADO
	CPN - COMERCIO GENERAL

ESCALA: 1:2,000

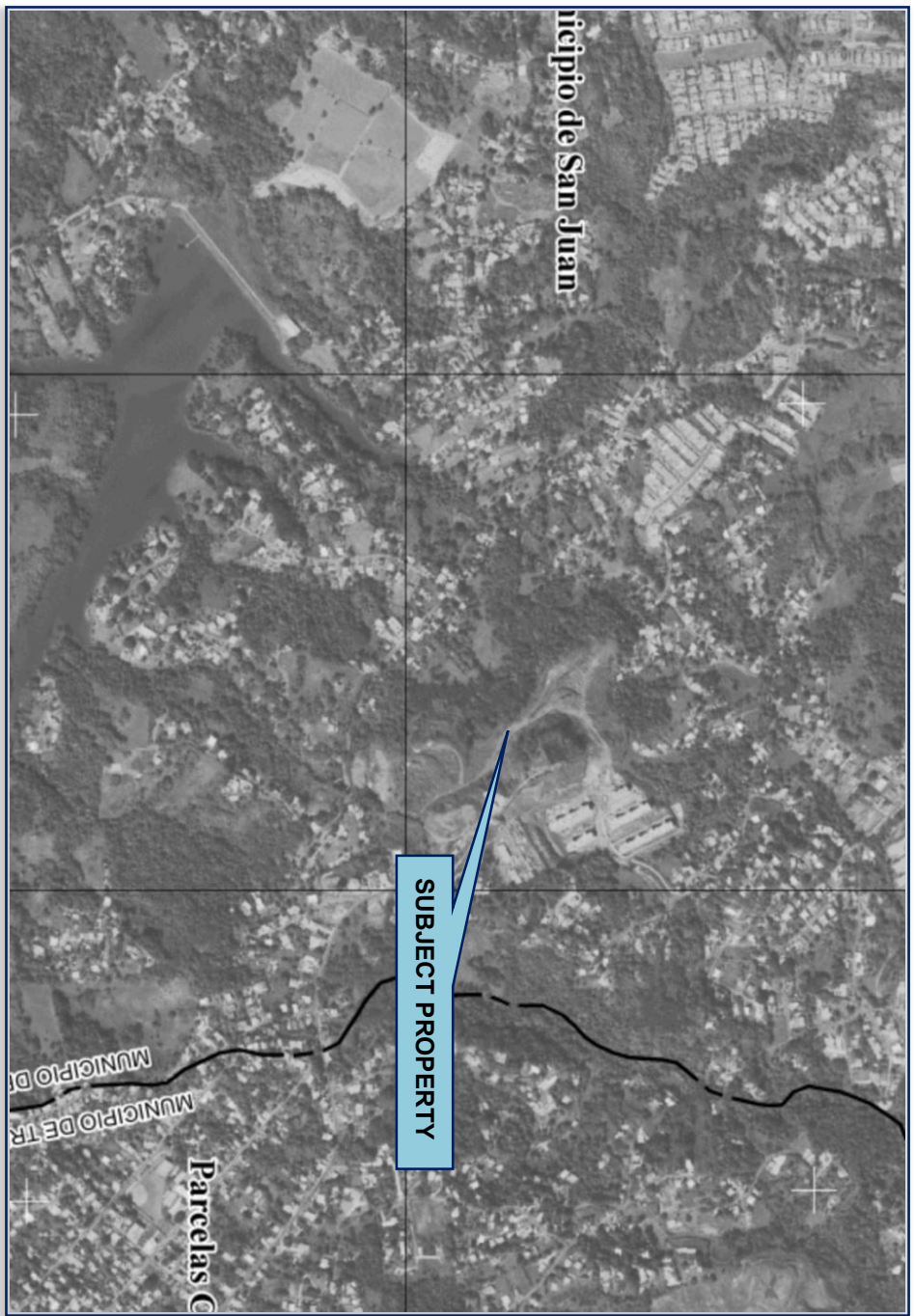
CTS GROUP INC.
 ENGINEERS & ENVIRONMENTAL CONSULTANTS

SUBJECT PROPERTY VICINITY
ZONING MAP
SOURCE: PLANNING BOARD OF PR

TFS HOUSING, LLC.
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO



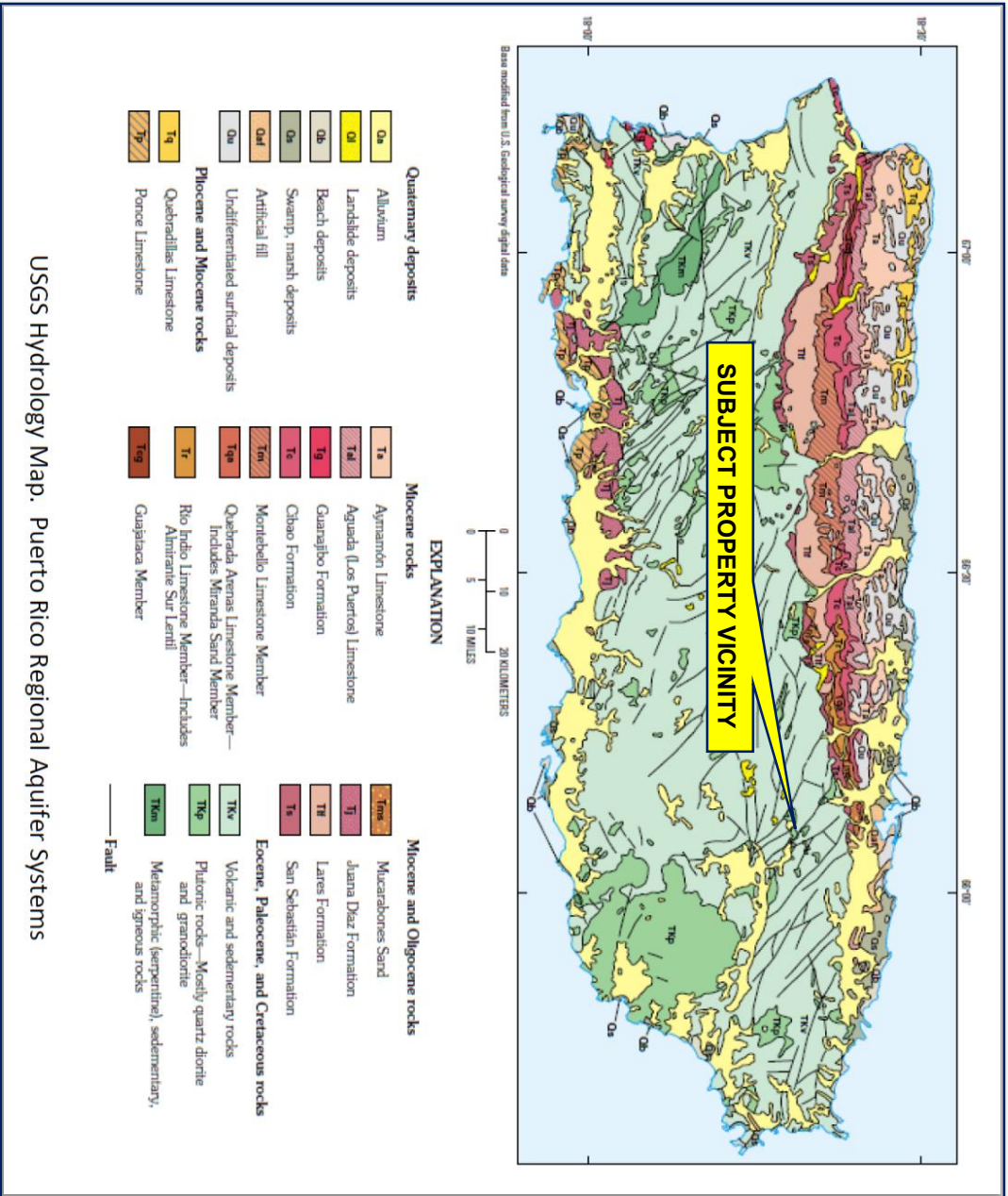
U.S. FEMA Flood Map



SUBJECT PROPERTY VICINITY
FLOOD MAP# 72000C0735H
SOURCE: US FEMA

TFS HOUSING, LLC.
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO

USGS Geologic Map



EXPLANATION

Quaternary deposits	Miocene rocks	Miocene and Oligocene rocks
Qa Alluvium	Ta Ayanamon Limestone	Tms Muzarabones Sand
Ql Landslide deposits	TAl Aguada (Los Puercos) Limestone	TJ Juana Diaz Formation
Qb Beach deposits	Tg Guanajibo Formation	TL Laros Formation
Qs Swamp, marsh deposits	Tc Chao Formation	Ts San Sebastián Formation
Qd Artificial fill	Tm Montebello Limestone Member	Eocene, Paleocene, and Cretaceous rocks
Qu Undifferentiated surficial deposits	Tqp Quebrada Ayeras Limestone Member— Includes Miranda Sand Member	TKe Volcanic and sedimentary rocks
Pliocene and Miocene rocks	Ti Rio Incho Limestone Member—includes Almirante Sur Lantil	TKp Plutonic rocks—Mostly quartz diorite and granodiorite
Tq Quebradillas Limestone	Tsg Guajajara Member	TKm Metamorphic (serpentine), sedimentary, and igneous rocks
Tp Ponce Limestone		— Fault

USGS Hydrology Map. Puerto Rico Regional Aquifer Systems

CTS GROUP INC.
ENGINEERS & ENVIRONMENTAL CONSULTANTS

USGE HYDROLOGY MAP
PUERTO RICO REGIONAL AQUIFER SYSTEM
USGS RESOURCES

TFS HOUSING, LLC.
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PUERTO RICO

Appendix I

EDR Radius Map with GeoCheck Report

Important: EDR offer limited services to Puerto Rico. Optios like Sanborn Maps and Tax ID Search are not available

Ensueno Cupey

Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926

Inquiry Number: 6733083.2s
November 03, 2021

The EDR Radius Map™ Report with GeoCheck®



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Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PR 00926

COORDINATES

Latitude (North): 18.3470600 - 18° 20' 49.41"
Longitude (West): 66.0411820 - 66° 2' 28.25"
Universal Transverse Mercator: Zone 19
UTM X (Meters): 812726.6
UTM Y (Meters): 2031004.9
Elevation: 389 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 12382740 AGUAS BUENAS, PR
Version Date: 2018

MAPPED SITES SUMMARY

Target Property Address:
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PR 00926

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
--------	-----------	---------	-------------------	--------------------	----------------------------

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL_____ National Priority List
 Proposed NPL_____ Proposed National Priority List Sites
 NPL LIENS_____ Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL_____ National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY_____ Federal Facility Site Information listing
 SEMS_____ Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE_____ Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS_____ Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF_____ RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG_____ RCRA - Large Quantity Generators
 RCRA-SQG_____ RCRA - Small Quantity Generators
 RCRA-VSQG_____ RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS_____ Land Use Control Information System

EXECUTIVE SUMMARY

US ENG CONTROLS_____ Engineering Controls Sites List
 US INST CONTROLS_____ Institutional Controls Sites List

Federal ERNS list

ERNS_____ Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS_____ This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State and tribal leaking storage tank lists

LUST_____ Leaking Underground Storage Tanks
 INDIAN LUST_____ Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST_____ Underground Storage Tank Listing
 UST_____ Underground Storage Tank Facilities
 INDIAN UST_____ Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP_____ Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS_____ A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI_____ Report on the Status of Open Dumps on Indian Lands
 ODI_____ Open Dump Inventory
 DEBRIS REGION 9_____ Torres Martinez Reservation Illegal Dump Site Locations
 IHS OPEN DUMPS_____ Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL_____ Delisted National Clandestine Laboratory Register
 US CDL_____ National Clandestine Laboratory Register

Local Land Records

LIENS 2_____ CERCLA Lien Information

Records of Emergency Release Reports

HMIRS_____ Hazardous Materials Information Reporting System

Other Ascertainable Records

RCRA NonGen / NLR_____ RCRA - Non Generators / No Longer Regulated

EXECUTIVE SUMMARY

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
UXO	Unexploded Ordnance Sites
FUELS PROGRAM	EPA Fuels Program Registered Listing
MINES MRDS	Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST	Recovered Government Archive Leaking Underground Storage Tank
----------	---

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 15 records.

<u>Site Name</u>	<u>Database(s)</u>
"NEW" ARMY AVIATION SUPPORT	SEMS-ARCHIVE, DOCKET HWC
VILLA NEVAREZ S/S #208	LUST
RSU LA ELECTRONICA REMOTO	LUST
CUPEY S/S #209	LUST
ESSO CO-011	LUST
COMPLEJO MEDICO SOCIAL ANTILLANA	LUST
GPR 1012	LUST
ENG. JOSE BETANCOURT	LUST
CENTERS DISEASE CONTROL	LUST
GULF # 304	LUST
GASOLINA COQUI	LUST
GULF #143	LUST
GULF # 403	LUST
BUILDING 445 & 449	LUST
CUPEY STATION AREA IMPROVEMENTS	FINDS, ECHO

OVERVIEW MAP - 6733083.2S



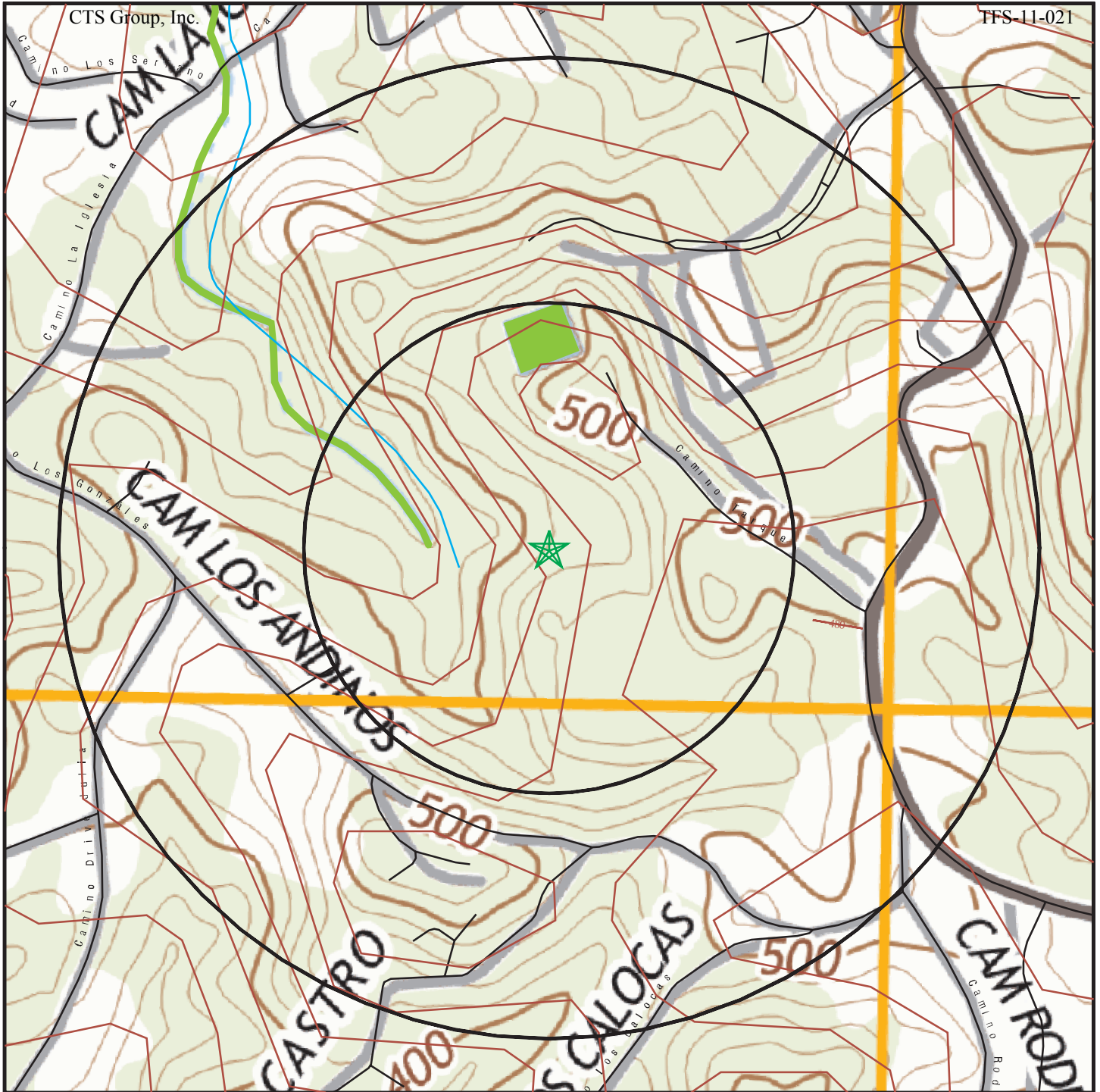
- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- N National Priority List Sites
- D Dept. Defense Sites
- I Indian Reservations BIA
- N County Boundary
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory










This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Ensueno Cupey ADDRESS: Road PR 844, Km 5.7, Cupey Ward, San Juan PR 00926 LAT/LONG: 18.34706 / 66.041182	CLIENT: CTS Group, Inc. CONTACT: Inosvany Negret INQUIRY #: 6733083.2S DATE: November 03, 2021 8:25 am
--	---





DETAIL MAP - 6733083.2S



TFS-11-021

-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites



-  Indian Reservations BIA
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  National Wetland Inventory



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: Ensueno Cupey ADDRESS: Road PR 844, Km 5.7, Cupey Ward, San Juan PR 00926 LAT/LONG: 18.34706 / 66.041182</p>	<p>CLIENT: CTS Group, Inc. CONTACT: Inosvany Negret INQUIRY #: 6733083.2S DATE: November 03, 2021 8:26 am</p>
---	--

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>State and tribal voluntary cleanup sites</i>								
INDIAN VCP	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST	TP		NR	NR	NR	NR	NR	0
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- Totals --		0	0	0	0	0	0	0
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NO SITES FOUND

Count: 15 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
RIO PIEDRAS	S103554013	VILLA NEVAREZ S/S #208	CALLE 2 ESQ. CARR 21/ VILLA NE		LUST
RIO PIEDRAS	S123161995	RSU LA ELECTRONICA REMOTO	CALLE DETROIT # 2 ESQ RAMAL 88		LUST
RIO PIEDRAS	S103554014	CUPEY S/S #209	CARR 176 KM 1.2		LUST
RIO PIEDRAS	S106917687	ESSO CO-011	PAZ GRANELA 1421 URB. STGO. IG		LUST
SAN JUAN	S105073605	COMPLEJO MEDICO SOCIAL ANTILLANA	AVE. 65 INFANTERIA KM 3.4		LUST
SAN JUAN	S106452774	GPR 1012	AVE. JESUS T PINERO NO 263 HAT		LUST
SAN JUAN	S103553996	ENG. JOSE BETANCOURT	CALLE O'NEILL, HATO REY		LUST
SAN JUAN	S103554152	CENTERS DISEASE CONTROL	CALLE 2 CASIA		LUST
SAN JUAN	S103553803	GULF # 304	CARR 2 KM 50 AVE KENNEDY		LUST
SAN JUAN	S104228770	GASOLINA COQUI	CARR 176 KM 7.2 CUPEY		LUST
SAN JUAN	S103553752	GULF #143	CARR 845 KM 0.2		LUST
SAN JUAN	S101442791	GULF # 403	FRANCIA #503, HATO REY		LUST
SAN JUAN	1018161525	"NEW" ARMY AVIATION SUPPORT	ISLA GRANDE ROAD OFF HACIA FER		SEMS-ARCHIVE, DOCKET HWC
SAN JUAN	S105421708	BUILDING 445 & 449	PARADA 71/2 SAN JUAN		LUST
SAN JUAN	1023666012	CUPEY STATION AREA IMPROVEMENTS	STATE ROAD PR-176	00926	FINDS, ECHO

CTS Group

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: N/A
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: N/A
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: N/A
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/24/2021	Telephone: 703-603-8704
Date Made Active in Reports: 09/20/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: 800-424-9346
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: 800-424-9346
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2021	Source: EPA
Date Data Arrived at EDR: 09/15/2021	Telephone: 800-424-9346
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (212) 637-3660
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (212) 637-3660
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (212) 637-3660
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (212) 637-3660
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/12/2021	Source: Department of the Navy
Date Data Arrived at EDR: 08/06/2021	Telephone: 843-820-7326
Date Made Active in Reports: 10/22/2021	Last EDR Contact: 08/05/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 11/22/2021
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/17/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/21/2021	Telephone: 703-603-0695
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 08/23/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/17/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/21/2021	Telephone: 703-603-0695
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 08/23/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2021	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 06/17/2021	Telephone: 202-267-2180
Date Made Active in Reports: 08/17/2021	Last EDR Contact: 09/21/2021
Number of Days to Update: 61	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A	Source: Environmental Quality Board
Date Data Arrived at EDR: N/A	Telephone: 787-767-8181
Date Made Active in Reports: N/A	Last EDR Contact: 08/22/2005
Number of Days to Update: N/A	Next Scheduled EDR Contact: 11/21/2005
	Data Release Frequency: N/A

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/24/2020	Source: Environmental Quality Board
Date Data Arrived at EDR: 02/09/2021	Telephone: 787-767-8056
Date Made Active in Reports: 05/04/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/17/2021	Source: EPA Region 6
Date Data Arrived at EDR: 06/11/2021	Telephone: 214-665-6597
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021	Source: EPA Region 1
Date Data Arrived at EDR: 06/11/2021	Telephone: 617-918-1313
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2021	Source: EPA Region 7
Date Data Arrived at EDR: 06/11/2021	Telephone: 913-551-7003
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/06/2021	Source: EPA, Region 5
Date Data Arrived at EDR: 06/11/2021	Telephone: 312-886-7439
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/27/2021	Source: EPA Region 8
Date Data Arrived at EDR: 06/11/2021	Telephone: 303-312-6271
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021	Source: EPA Region 4
Date Data Arrived at EDR: 06/22/2021	Telephone: 404-562-8677
Date Made Active in Reports: 09/20/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 90	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/27/2021	Source: EPA Region 10
Date Data Arrived at EDR: 06/11/2021	Telephone: 206-553-2857
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/27/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/11/2021	Telephone: 415-972-3372
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021	Source: FEMA
Date Data Arrived at EDR: 02/17/2021	Telephone: 202-646-5797
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 11/01/2021
Number of Days to Update: 33	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Varies

UST: Underground Storage Tank Facilities
Underground storage tank site locations.

Date of Government Version: 01/01/2008	Source: Environmental Quality Board
Date Data Arrived at EDR: 03/26/2008	Telephone: 787-767-8056
Date Made Active in Reports: 04/23/2008	Last EDR Contact: 10/22/2021
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021	Source: EPA Region 5
Date Data Arrived at EDR: 06/11/2021	Telephone: 312-886-6136
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/17/2021	Source: EPA Region 6
Date Data Arrived at EDR: 06/11/2021	Telephone: 214-665-7591
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/27/2021	Source: EPA Region 10
Date Data Arrived at EDR: 06/11/2021	Telephone: 206-553-2857
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/27/2021	Source: EPA Region 8
Date Data Arrived at EDR: 06/11/2021	Telephone: 303-312-6137
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 06/01/2021	Source: EPA Region 7
Date Data Arrived at EDR: 06/11/2021	Telephone: 913-551-7003
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/28/2021	Source: EPA, Region 1
Date Data Arrived at EDR: 06/11/2021	Telephone: 617-918-1313
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/27/2021	Source: EPA Region 9
Date Data Arrived at EDR: 06/11/2021	Telephone: 415-972-3368
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021	Source: EPA Region 4
Date Data Arrived at EDR: 06/22/2021	Telephone: 404-562-9424
Date Made Active in Reports: 09/20/2021	Last EDR Contact: 10/22/2021
Number of Days to Update: 90	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 07/08/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 09/15/2021
Number of Days to Update: 142	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/10/2021	Telephone: 202-566-2777
Date Made Active in Reports: 08/17/2021	Last EDR Contact: 09/14/2021
Number of Days to Update: 68	Next Scheduled EDR Contact: 12/27/2021
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 10/22/2021
Number of Days to Update: 52	Next Scheduled EDR Contact: 02/07/2022
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/14/2021
Number of Days to Update: 137	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014	Source: Department of Health & Human Services, Indian Health Service
Date Data Arrived at EDR: 08/06/2014	Telephone: 301-443-1452
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 10/28/2021
Number of Days to Update: 176	Next Scheduled EDR Contact: 02/07/2022
	Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2021	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 05/18/2021	Telephone: 202-307-1000
Date Made Active in Reports: 08/03/2021	Last EDR Contact: 08/17/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2021	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 05/18/2021	Telephone: 202-307-1000
Date Made Active in Reports: 08/03/2021	Last EDR Contact: 08/17/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/04/2021	Telephone: 202-564-6023
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/12/2021	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 09/13/2021	Telephone: 202-366-4555
Date Made Active in Reports: 09/28/2021	Last EDR Contact: 09/13/2021
Number of Days to Update: 15	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (212) 637-3660
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/10/2021	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 08/17/2021	Telephone: 202-528-4285
Date Made Active in Reports: 10/22/2021	Last EDR Contact: 08/17/2021
Number of Days to Update: 66	Next Scheduled EDR Contact: 11/29/2021
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 10/15/2021
Number of Days to Update: 62	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 10/05/2021
Number of Days to Update: 574	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 08/06/2021
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/22/2021
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: 202-566-1917
Date Made Active in Reports: 09/28/2021	Last EDR Contact: 09/15/2021
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 11/01/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 02/14/2022
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 08/06/2021
Number of Days to Update: 73	Next Scheduled EDR Contact: 11/15/2021
	Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/17/2020	Telephone: 202-260-5521
Date Made Active in Reports: 09/10/2020	Last EDR Contact: 09/17/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 12/27/2021
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018	Source: EPA
Date Data Arrived at EDR: 08/14/2020	Telephone: 202-566-0250
Date Made Active in Reports: 11/04/2020	Last EDR Contact: 08/17/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 11/29/2021
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/19/2021	Source: EPA
Date Data Arrived at EDR: 07/19/2021	Telephone: 202-564-4203
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 10/20/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2021	Source: EPA
Date Data Arrived at EDR: 08/04/2021	Telephone: 703-416-0223
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/07/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/13/2021	Telephone: 202-564-8600
Date Made Active in Reports: 08/03/2021	Last EDR Contact: 10/18/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020	Source: EPA
Date Data Arrived at EDR: 01/14/2021	Telephone: 202-564-6023
Date Made Active in Reports: 03/05/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 50	Next Scheduled EDR Contact: 11/15/2021
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020	Source: EPA
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-566-0500
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 10/08/2021
Number of Days to Update: 73	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 09/30/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
 FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
 A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/11/2021	Telephone: 301-415-7169
Date Made Active in Reports: 05/11/2021	Last EDR Contact: 10/18/2021
Number of Days to Update: 61	Next Scheduled EDR Contact: 01/31/2022
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019	Source: Department of Energy
Date Data Arrived at EDR: 12/01/2020	Telephone: 202-586-8719
Date Made Active in Reports: 02/09/2021	Last EDR Contact: 09/03/2021
Number of Days to Update: 70	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 08/31/2021
Number of Days to Update: 251	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 08/06/2021
Number of Days to Update: 96	Next Scheduled EDR Contact: 11/15/2021
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 09/27/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 10/26/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 02/07/2022
	Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2021	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 07/14/2021	Telephone: Varies
Date Made Active in Reports: 07/16/2021	Last EDR Contact: 09/30/2021
Number of Days to Update: 2	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017	Source: EPA/NTIS
Date Data Arrived at EDR: 06/22/2020	Telephone: 800-424-9346
Date Made Active in Reports: 11/20/2020	Last EDR Contact: 09/15/2021
Number of Days to Update: 151	Next Scheduled EDR Contact: 01/03/2022
	Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 10/05/2021
Number of Days to Update: 546	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021	Source: Department of Energy
Date Data Arrived at EDR: 07/27/2021	Telephone: 202-586-3559
Date Made Active in Reports: 10/22/2021	Last EDR Contact: 11/01/2021
Number of Days to Update: 87	Next Scheduled EDR Contact: 02/14/2022
	Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019	Source: Department of Energy
Date Data Arrived at EDR: 11/15/2019	Telephone: 505-845-0011
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 08/12/2021
Number of Days to Update: 74	Next Scheduled EDR Contact: 11/29/2021
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/04/2021	Telephone: 703-603-8787
Date Made Active in Reports: 08/31/2021	Last EDR Contact: 10/01/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/10/2022
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 100	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 100	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/30/2021	Source: DOL, Mine Safety & Health Admi
Date Data Arrived at EDR: 07/01/2021	Telephone: 202-693-9424
Date Made Active in Reports: 09/28/2021	Last EDR Contact: 09/09/2021
Number of Days to Update: 89	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2021	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 05/25/2021	Telephone: 303-231-5959
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 08/24/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020	Source: USGS
Date Data Arrived at EDR: 05/27/2020	Telephone: 703-648-7709
Date Made Active in Reports: 08/13/2020	Last EDR Contact: 08/26/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 08/26/2021
Number of Days to Update: 97	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/15/2021	Source: Department of Interior
Date Data Arrived at EDR: 06/16/2021	Telephone: 202-208-2609
Date Made Active in Reports: 08/17/2021	Last EDR Contact: 09/14/2021
Number of Days to Update: 62	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/05/2021	Source: EPA
Date Data Arrived at EDR: 05/18/2021	Telephone: (212) 637-3000
Date Made Active in Reports: 08/17/2021	Last EDR Contact: 08/31/2021
Number of Days to Update: 91	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/21/2021	Telephone: 202-564-0527
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 08/26/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018	Source: Department of Defense
Date Data Arrived at EDR: 07/02/2020	Telephone: 703-704-1564
Date Made Active in Reports: 09/17/2020	Last EDR Contact: 10/07/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 01/24/2022
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/26/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2021	Telephone: 202-564-2280
Date Made Active in Reports: 09/28/2021	Last EDR Contact: 10/05/2021
Number of Days to Update: 89	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/13/2021	Source: EPA
Date Data Arrived at EDR: 08/13/2021	Telephone: 800-385-6164
Date Made Active in Reports: 10/22/2021	Last EDR Contact: 08/13/2021
Number of Days to Update: 70	Next Scheduled EDR Contact: 11/29/2021
	Data Release Frequency: Quarterly

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018	Source: USGS
Date Data Arrived at EDR: 10/21/2019	Telephone: 703-648-6533
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 08/26/2021
Number of Days to Update: 3	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014	Source: EPA
Date Data Arrived at EDR: 02/05/2015	Telephone: 202-564-2497
Date Made Active in Reports: 03/06/2015	Last EDR Contact: 09/30/2021
Number of Days to Update: 29	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011	Source: EPA, Office of Water
Date Data Arrived at EDR: 08/05/2011	Telephone: 202-564-2496
Date Made Active in Reports: 09/29/2011	Last EDR Contact: 09/30/2021
Number of Days to Update: 55	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014	Source: EPA
Date Data Arrived at EDR: 01/06/2015	Telephone: 202-564-2496
Date Made Active in Reports: 05/06/2015	Last EDR Contact: 09/30/2021
Number of Days to Update: 120	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Environmental Quality Board in Puerto Rico.

Date of Government Version: N/A	Source: Environmental Quality Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/04/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 187	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 04/10/2019	Telephone: N/A
Date Made Active in Reports: 05/16/2019	Last EDR Contact: 10/05/2021
Number of Days to Update: 36	Next Scheduled EDR Contact: 01/17/2022
	Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2019	Source: Department of Environmental Management
Date Data Arrived at EDR: 02/11/2021	Telephone: 401-222-2797
Date Made Active in Reports: 02/24/2021	Last EDR Contact: 08/11/2021
Number of Days to Update: 13	Next Scheduled EDR Contact: 11/29/2021
	Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM**TARGET PROPERTY ADDRESS**

ENSUENO CUPEY
ROAD PR-844, KM. 4, CUPEY WARD
SAN JUAN, PR 00926

TARGET PROPERTY COORDINATES

Latitude (North): 18.34706 - 18° 20' 49.42"
Longitude (West): 66.041182 - 66° 2' 28.26"
Universal Tranverse Mercator: Zone 19
UTM X (Meters): 812726.6
UTM Y (Meters): 2031004.9
Elevation: 389 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 12382740 AGUAS BUENAS, PR
Version Date: 2018

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

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GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

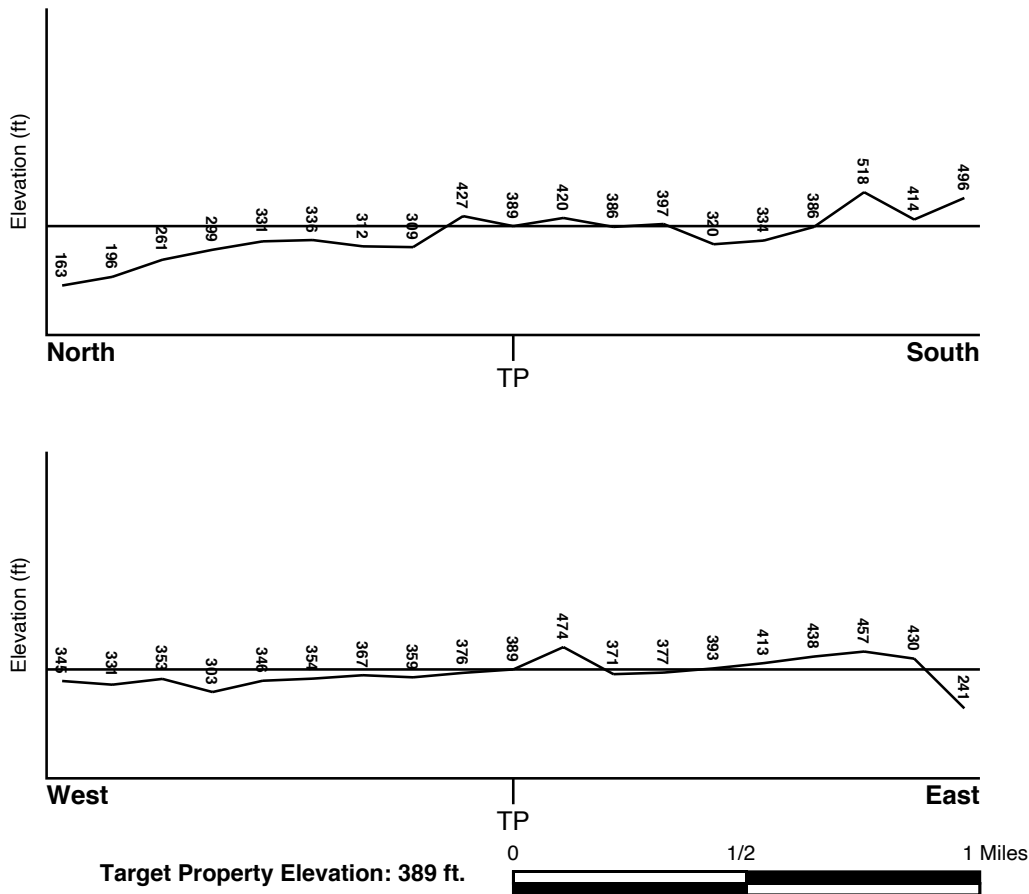
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
7200000112C	FEMA Q3 Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
Not Reported	

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	-	Category:	-
System:	-		
Series:	-		
Code:	N/A	<i>(decoded above as Era, System & Series)</i>	

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: MUCARA

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 20 inches

Depth to Bedrock Max: > 36 inches

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Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	6 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 5.60
2	6 inches	12 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 5.60
3	12 inches	22 inches	weathered bedrock	Not reported	Not reported	Max: 0.60 Min: 0.20	Max: 0.00 Min: 0.00
4	22 inches	26 inches	unweathered bedrock	Not reported	Not reported	Max: 0.60 Min: 0.20	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: clay loam

Surficial Soil Types: clay loam

Shallow Soil Types: very gravelly - clay loam

Deeper Soil Types: No Other Soil Types

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

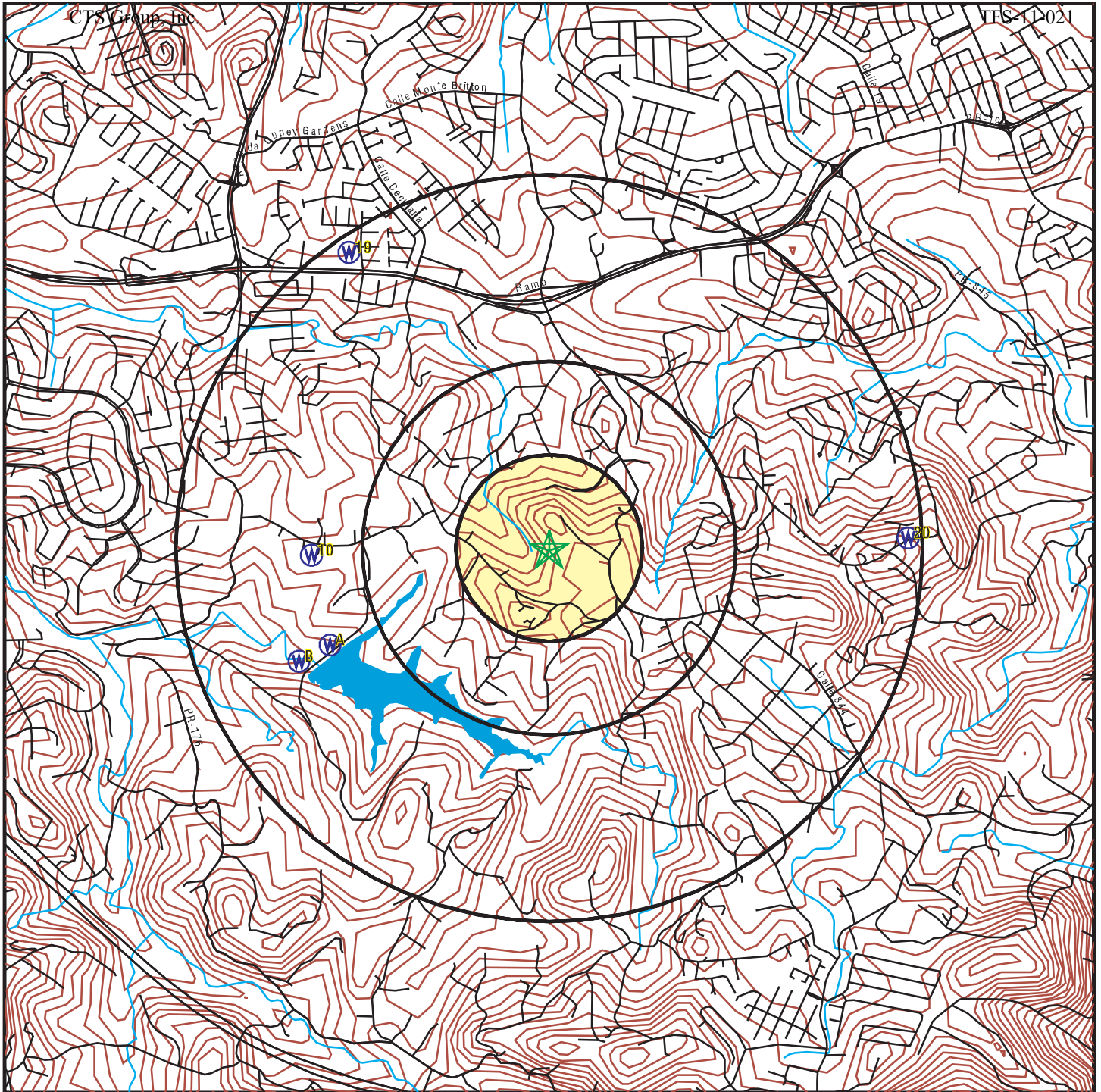
MAP ID	WELL ID	LOCATION FROM TP
A1	USGS40001045234	1/2 - 1 Mile WSW
A2	USGS40001045237	1/2 - 1 Mile WSW
A3	USGS40001045235	1/2 - 1 Mile WSW
A4	USGS40001045236	1/2 - 1 Mile WSW
A5	USGS40001045231	1/2 - 1 Mile WSW
A6	USGS40001045232	1/2 - 1 Mile WSW
A7	USGS40001045238	1/2 - 1 Mile WSW
A8	USGS40001045240	1/2 - 1 Mile WSW
A9	USGS40001045239	1/2 - 1 Mile WSW
10	USGS40001045254	1/2 - 1 Mile West
A11	USGS40001045221	1/2 - 1 Mile WSW
A12	USGS40001045222	1/2 - 1 Mile WSW
A13	USGS40001045228	1/2 - 1 Mile WSW
A14	USGS40001045233	1/2 - 1 Mile WSW
A15	USGS40001045227	1/2 - 1 Mile WSW
B16	USGS40001045223	1/2 - 1 Mile WSW
B17	USGS40001045224	1/2 - 1 Mile WSW
B18	USGS40001045220	1/2 - 1 Mile WSW
19	USGS40001045318	1/2 - 1 Mile NW
20	USGS40001045260	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

PHYSICAL SETTING SOURCE MAP - 6733083.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons



- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



SITE NAME: Ensueno Cupey
 ADDRESS: Road PR 844, Km 5.7, Cupey Ward
 USA P.R. 00926-19-11S Housing, LLC. (Ensueno Cupey) P.R. 00926

LAT/LONG: 18.34706 / 66.041182

CLIENT: CTS Group, Inc.
 CONTACT: Inosvany Negret
 INQUIRY #: 6733083.2s

DATE: November 03, 2021 8:26 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A1

WSW
 1/2 - 1 Mile
 Lower

FED USGS USGS40001045234

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 1, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A2

WSW
 1/2 - 1 Mile
 Lower

FED USGS USGS40001045237

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 4, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A3

WSW
 1/2 - 1 Mile
 Lower

FED USGS USGS40001045235

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 2, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A4
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045236

Organization ID:	USGS-PR	Description:	LAS CURIAS DAM PROJECT
Organization Name:	USGS Puerto Rico Water Science Center	Drainage Area:	Not Reported
Monitor Location:	PIEZOMETER LAS CURIAS 3, SAN JUAN, PR	Contrib Drainage Area:	Not Reported
Type:	Well	Aquifer:	Not Reported
HUC:	21010005	Aquifer Type:	Not Reported
Drainage Area Units:	Not Reported	Well Depth:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Well Hole Depth:	Not Reported
Formation Type:	Not Reported		
Construction Date:	Not Reported		
Well Depth Units:	Not Reported		
Well Hole Depth Units:	Not Reported		

A5
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045231

Organization ID:	USGS-PR	Description:	LAS CURIAS DAM PROJECT
Organization Name:	USGS Puerto Rico Water Science Center	Drainage Area:	Not Reported
Monitor Location:	PIEZOMETER LAS CURIAS 5, SAN JUAN, PR	Contrib Drainage Area:	Not Reported
Type:	Well	Aquifer:	Not Reported
HUC:	21010005	Aquifer Type:	Not Reported
Drainage Area Units:	Not Reported	Well Depth:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Well Hole Depth:	Not Reported
Formation Type:	Not Reported		
Construction Date:	Not Reported		
Well Depth Units:	Not Reported		
Well Hole Depth Units:	Not Reported		

A6
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045232

Organization ID:	USGS-PR	Description:	LAS CURIAS DAM PROJECT
Organization Name:	USGS Puerto Rico Water Science Center	Drainage Area:	Not Reported
Monitor Location:	PIEZOMETER LAS CURIAS 6, SAN JUAN, PR	Contrib Drainage Area:	Not Reported
Type:	Well	Aquifer:	Not Reported
HUC:	21010005	Aquifer Type:	Not Reported
Drainage Area Units:	Not Reported	Well Depth:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Well Hole Depth:	Not Reported
Formation Type:	Not Reported		
Construction Date:	Not Reported		
Well Depth Units:	Not Reported		
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A7
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045238

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 7, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A8
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045240

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 9, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A9
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045239

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 8, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

10
West **FED USGS** **USGS40001045254**
1/2 - 1 Mile
Lower

Organization ID:	USGS-PR	Description:	DF PT
Organization Name:	USGS Puerto Rico Water Science Center	Drainage Area:	Not Reported
Monitor Location:	CRIOLLAZO WELL, SAN JUAN, PR	Contrib Drainage Area:	Not Reported
Type:	Well	Aquifer:	Not Reported
HUC:	21010005	Aquifer Type:	Not Reported
Drainage Area Units:	Not Reported	Well Depth:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Well Hole Depth:	Not Reported
Formation Type:	Not Reported		
Construction Date:	Not Reported		
Well Depth Units:	Not Reported		
Well Hole Depth Units:	Not Reported		

A11
WSW **FED USGS** **USGS40001045221**
1/2 - 1 Mile
Lower

Organization ID:	USGS-PR	Description:	LAS CURIAS DAM PROJECT
Organization Name:	USGS Puerto Rico Water Science Center	Drainage Area:	Not Reported
Monitor Location:	PIEZOMETER LAS CURIAS 10, SAN JUAN, PR	Contrib Drainage Area:	Not Reported
Type:	Well	Aquifer:	Not Reported
HUC:	21010005	Aquifer Type:	Not Reported
Drainage Area Units:	Not Reported	Well Depth:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Well Hole Depth:	Not Reported
Formation Type:	Not Reported		
Construction Date:	Not Reported		
Well Depth Units:	Not Reported		
Well Hole Depth Units:	Not Reported		

A12
WSW **FED USGS** **USGS40001045222**
1/2 - 1 Mile
Lower

Organization ID:	USGS-PR	Description:	LAS CURIAS DAM PROJECT
Organization Name:	USGS Puerto Rico Water Science Center	Drainage Area:	Not Reported
Monitor Location:	PIEZOMETER LAS CURIAS 11, SAN JUAN, PR	Contrib Drainage Area:	Not Reported
Type:	Well	Aquifer:	Not Reported
HUC:	21010005	Aquifer Type:	Not Reported
Drainage Area Units:	Not Reported	Well Depth:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Well Hole Depth:	Not Reported
Formation Type:	Not Reported		
Construction Date:	Not Reported		
Well Depth Units:	Not Reported		
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A13
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045228

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 12, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A14
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045233

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 15, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A15
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045227

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 13, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

B16
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045223

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 21, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

B17
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045224

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 20, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

B18
WSW
1/2 - 1 Mile
Lower

FED USGS USGS40001045220

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	PIEZOMETER LAS CURIAS 19, SAN JUAN, PR		
Type:	Well	Description:	LAS CURIAS DAM PROJECT
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

19
NW
1/2 - 1 Mile
Lower
FED USGS USGS40001045318

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	HANC 1 WELL, SAN JUAN, PR	Type:	Well
Description:	Not Reported	HUC:	21010005
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1958
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	90	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1958
Feet below surface:	23	Feet to sea level:	Not Reported
Note:	Not Reported		

20
East
1/2 - 1 Mile
Higher
FED USGS USGS40001045260

Organization ID:	USGS-PR		
Organization Name:	USGS Puerto Rico Water Science Center		
Monitor Location:	QGAR WELL, TRUJILLO ALTO, PR		
Type:	Well	Description:	Not Reported
HUC:	21010005	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported	Aquifer:	Not Reported
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	1960	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	112
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-05-22
Feet below surface:	18.90	Feet to sea level:	Not Reported
Note:	Not Reported		

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON**

AREA RADON INFORMATION

Not Reported

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATIONAQUIFLOW[®] Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey


STREET AND ADDRESS INFORMATION

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Appendix II

EDR Historical Topo Map and Aerial Photo Report

Important: EDR offer limited services to Puerto Rico. Optios like Sanborn Maps and Tax ID Search are not available



Ensueno Cupey
Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926


Inquiry Number: 6733083.5

November 03, 2021

EDR Historical Topo Map Report

with QuadMatch™



Site Name: Ensueno Cupey Road PR-844, Km. 4, Cupey W San Juan, PR 00926 EDR Inquiry # 6733083.5	Client Name: CTS Group, Inc. 400 Juan Calaf, Ste. 235 San Juan, PR 00912 Contact: Ihosvany Negret	
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EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by CTS Group, Inc. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		Coordinates:	
P.O.#	NA	Latitude:	18.34706 18° 20' 49" North
Project:	Ensueno Cupey	Longitude:	-66.041182 -66° 2' 28" West
		UTM Zone:	Zone 19 North
		UTM X Meters:	812721.98
		UTM Y Meters:	2031126.89
		Elevation:	400.83' above sea level

Maps Provided:

- 2013
- 1982
- 1969
- 1964
- 1957
- 1955
- 1952
- 1947
- 1946

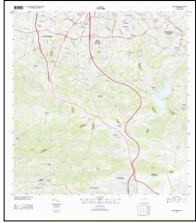
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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2013 Source Sheets



Aguas Buenas
2013
7.5-minute, 20000

1982 Source Sheets



Aguas Buenas
1982
7.5-minute, 20000
Aerial Photo Revised 1977

1969 Source Sheets



Aguas Buenas
1969
7.5-minute, 20000
Aerial Photo Revised 1967

1964 Source Sheets



Aguas Buenas
1964
7.5-minute, 20000
Aerial Photo Revised 1962

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1957 Source Sheets



Aguas Buenas
1957
7.5-minute, 20000
Aerial Photo Revised 1941

1955 Source Sheets



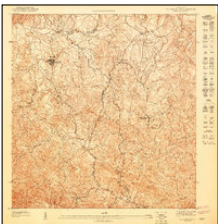
Aguas Buenas
1955
7.5-minute, 20000
Aerial Photo Revised 1941

1952 Source Sheets

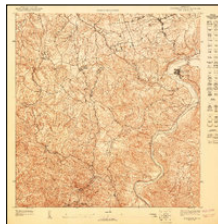


Aguas Buenas
1952
7.5-minute, 30000
Aerial Photo Revised 1941

1947 Source Sheets



Aguas Buenas NO
1947
7.5-minute, 10000



Aguas Buenas NE
1947
7.5-minute, 10000

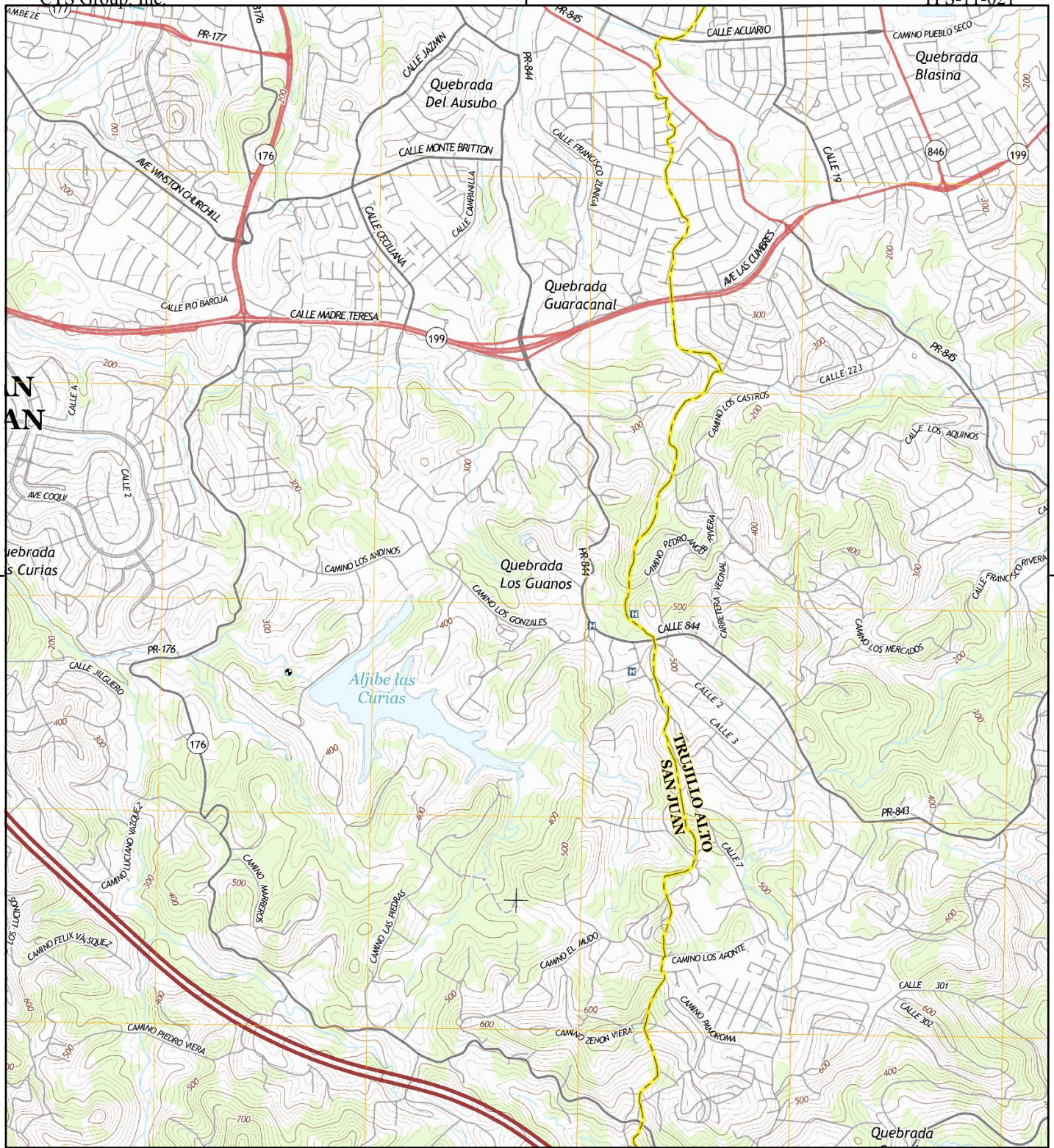
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

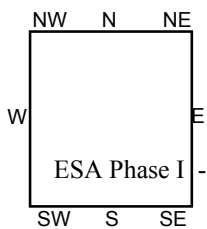
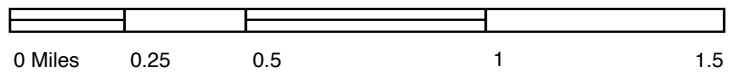
1946 Source Sheets



Aguas Buenas
1946
7.5-minute, 30000



This report includes information from the following map sheet(s).

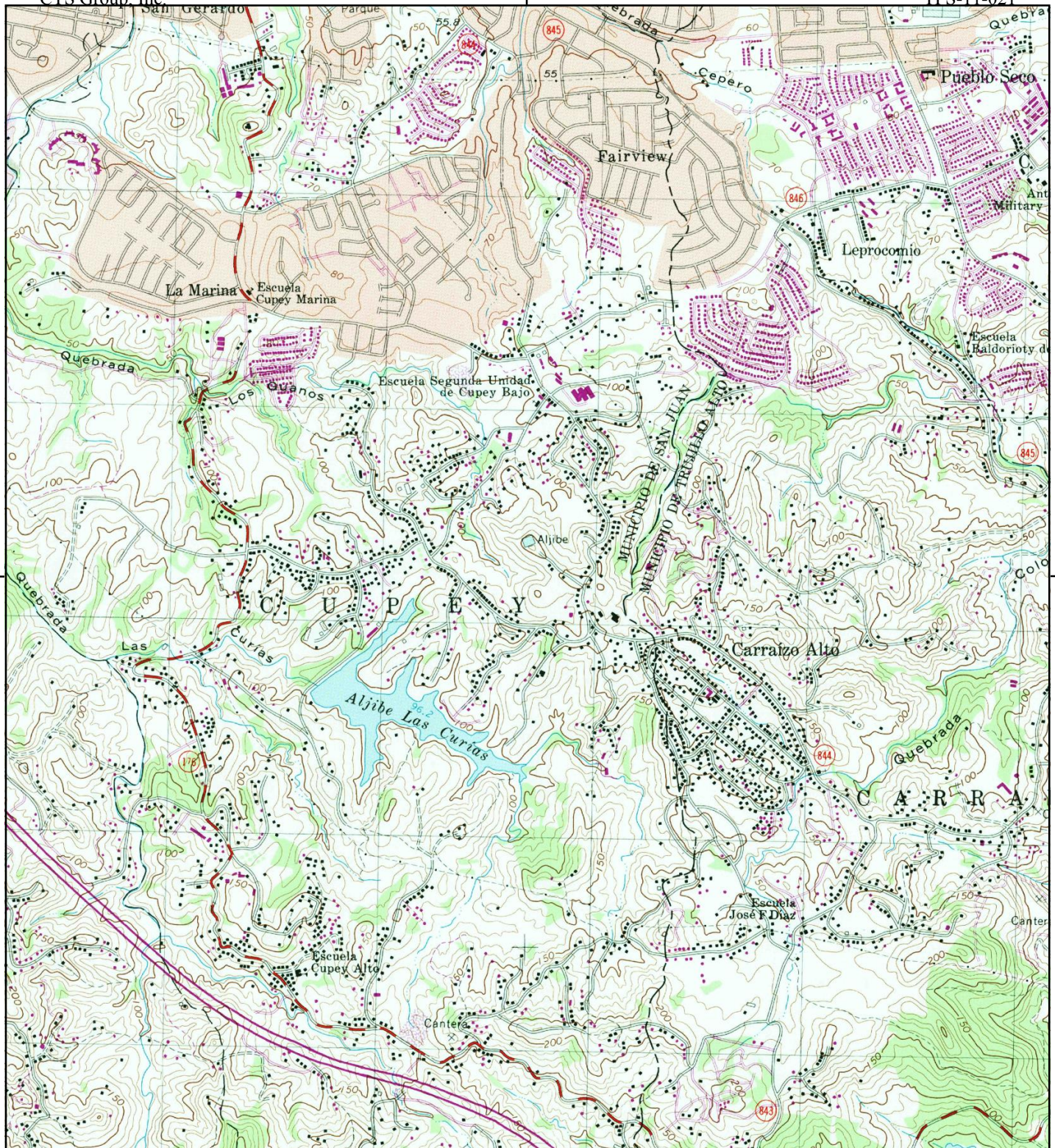


TP, Aguas Buenas, 2013, 7.5-minute

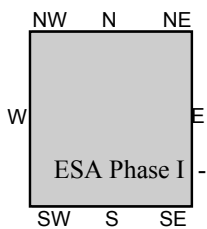
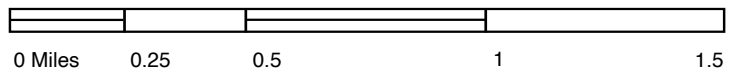
SITE NAME: Ensueño Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

128 N



This report includes information from the following map sheet(s).

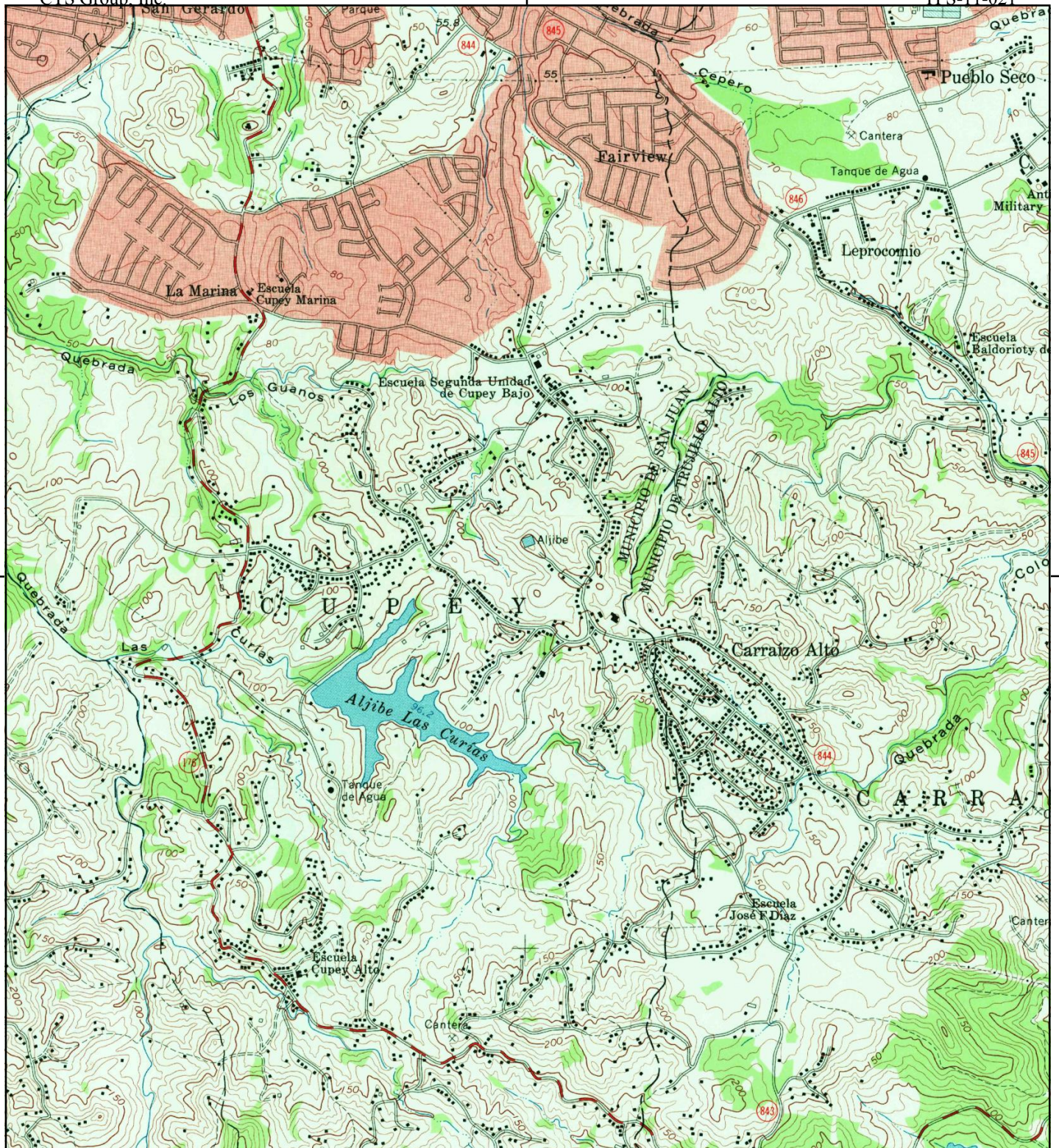


TP, Aguas Buenas, 1982, 7.5-minute

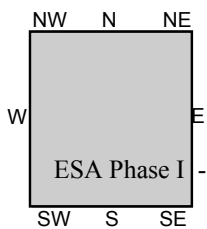
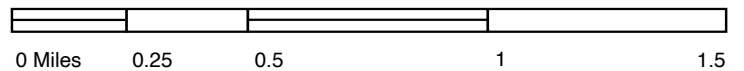
SITE NAME: Ensueño Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

129 N



This report includes information from the following map sheet(s).

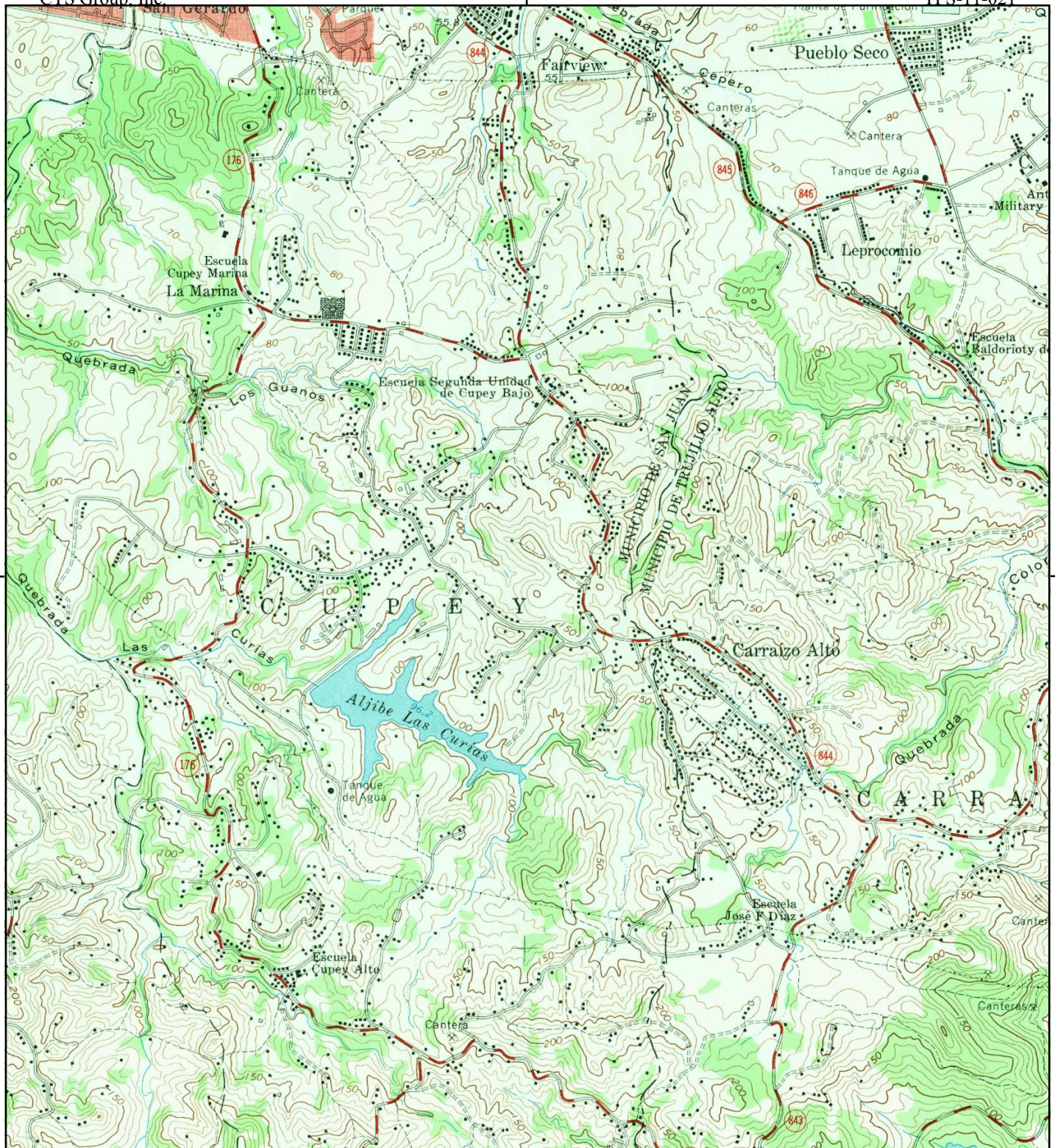


TP, Aguas Buenas, 1969, 7.5-minute

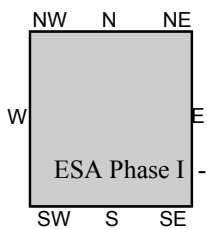
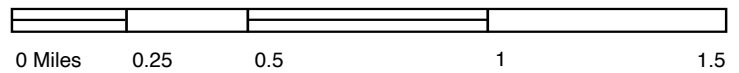
SITE NAME: Ensueño Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

130 N



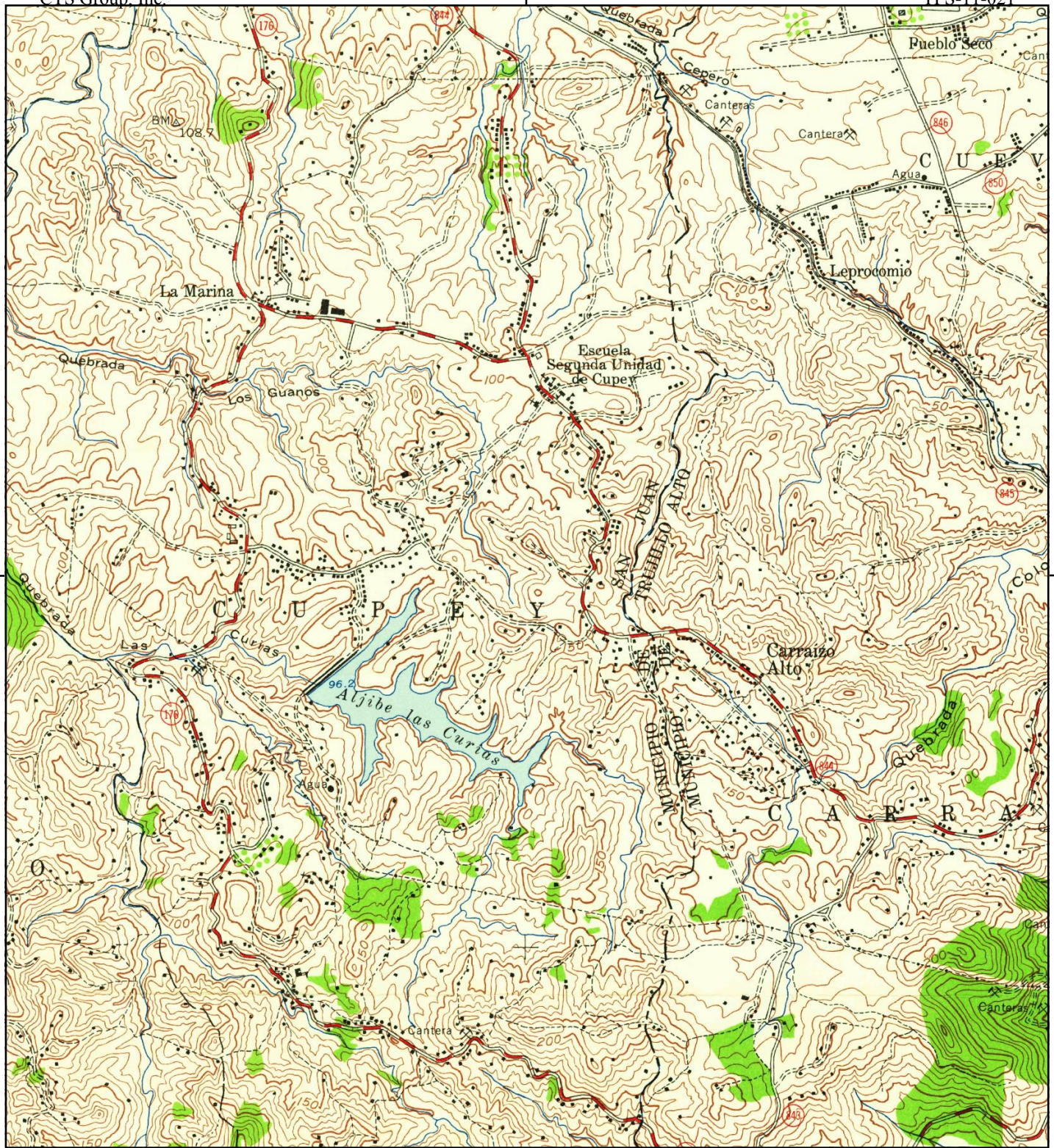
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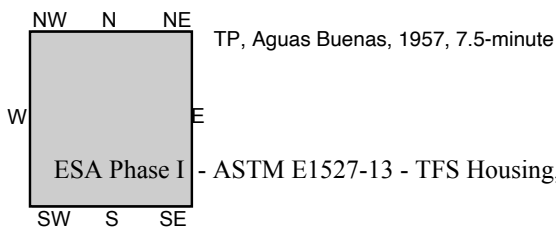
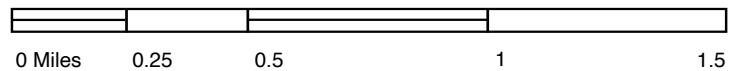
TP, Aguas Buenas, 1964, 7.5-minute

SITE NAME: Ensueno Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

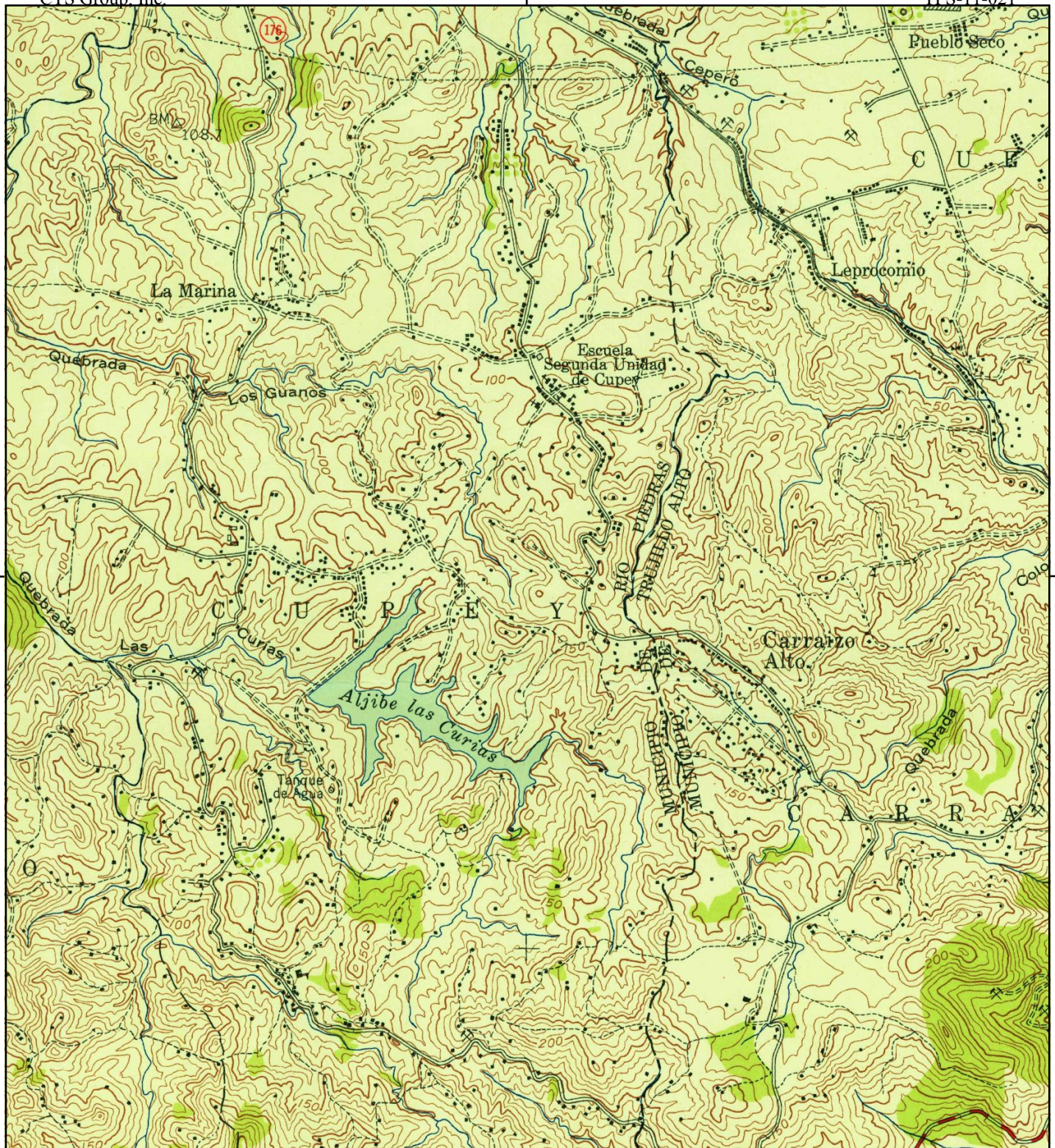


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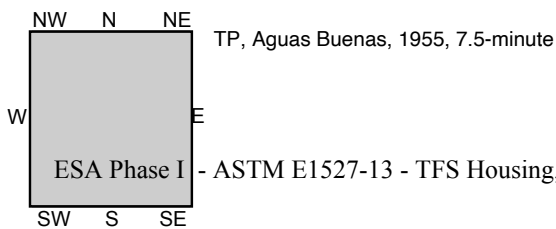
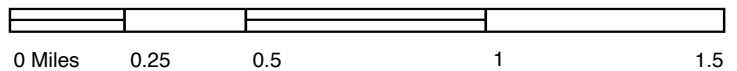


SITE NAME: Ensueño Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.





This report includes information from the following map sheet(s).

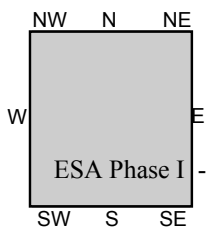
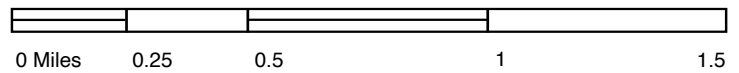


SITE NAME: Ensueno Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.



This report includes information from the following map sheet(s).



TP, Aguas Buenas, 1952, 7.5-minute

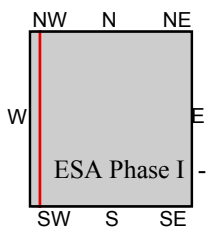
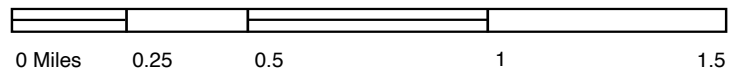
SITE NAME: Ensueno Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

134 N



This report includes information from the following map sheet(s).



TP, Aguas Buenas NE, 1947, 7.5-minute
W, Aguas Buenas NO, 1947, 7.5-minute

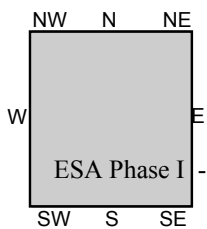
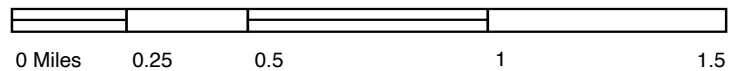
SITE NAME: Ensueño Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

135 N



This report includes information from the following map sheet(s).



TP, Aguas Buenas, 1946, 7.5-minute

SITE NAME: Ensueño Cupey
ADDRESS: Road PR-844, Km. 4, Cupey Ward
San Juan, PR 00926
CLIENT: CTS Group, Inc.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

136 N



Ensueno Cupey

Road PR-844, Km. 4, Cupey Ward


San Juan, PR 00926

Inquiry Number: 6733083.6

November 05, 2021

The EDR Aerial Photo Decade Package



Site Name:	Client Name:	
Ensueno Cupey	CTS Group, Inc.	
Road PR-844, Km. 4, Cupey W	400 Juan Calaf, Ste. 235	
San Juan, PR 00926	San Juan, PR 00912	
EDR Inquiry # 6733083.6	Contact: Ihosvany Negret	

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1977	1"=500'	Flight Date: March 08, 1977	USGS
1967	1"=500'	Flight Date: October 02, 1967	USGS

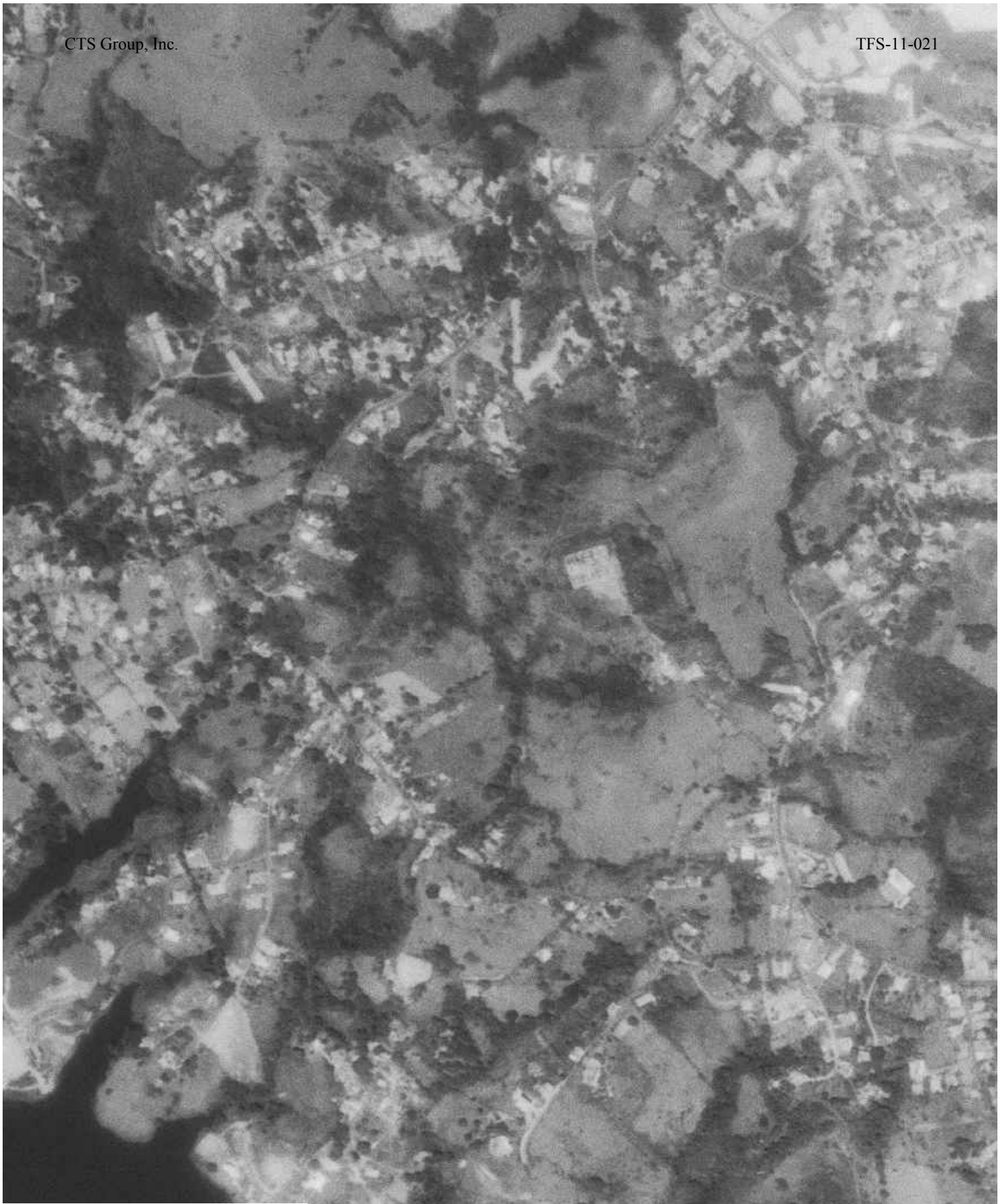
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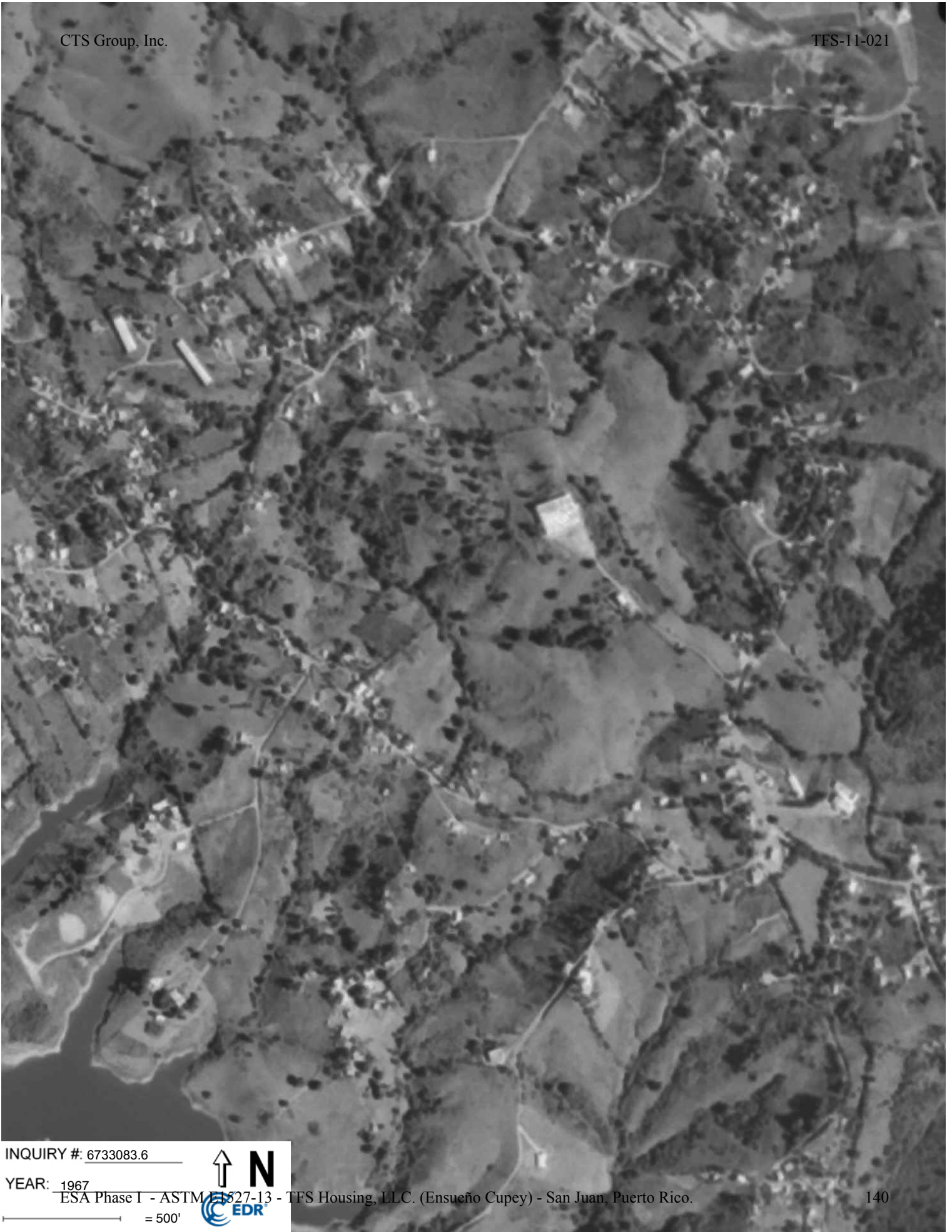
INQUIRY #: 6733083.6

YEAR: 1977



ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

— = 500'



INQUIRY #: 6733083.6

YEAR: 1967



ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

= 500'

Appendix III
USGS and Puerto Rico EQB Water
Monitoring Wells



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San Juan Municipio, Puerto Rico

Click site symbol to open information pop-up. Click Station ID in pop-up for information and data.
Map loading slowly? Try a different browser. Web browser performance varies significantly.



Explanation - Percentile classes (symbol color based on most recent measurement)						Wells		Springs	
●	●	●	●	●	●	○	◻	◻	◻
Low	<10 Much Below Normal	10-24 Below Normal	25-75 Normal	76-90 Above Normal	>90 Much Above Normal	High	Not Ranked	Real-Time	Continuous
								Periodic Measurements	

Map generated 11/26/2021 7:51:56 AM

[Groundwater Watch Help Page](#)

Network wells depicted on the San Juan Municipio, PR location map

Note: Color shading in the table below indicates multiple wells that plot as a single point on the state location map above.
Note: BLS = Water Level in Feet Below Land Surface, RVD = Water Level referenced to a vertical datum

Map Index	Site ID	Site Name	Most Recent Measurement	Date	Well Depth	Local Aquifer
▲ 1	182406066034700	PIEZOMETER JARDIN BOTANICO III-19 SAN JUAN, PR	7.66 BLS	11/10/2021	48	Valley Alluvium
▲ 2	182417066042701	PIEZOMETER LAS AMERICAS II-10, SAN JUAN, PR	0.41 BLS	11/10/2021	52.0	North Coast Limestone Aquifer, Upper
▲ 3	182443066041502	PIEZOMETER MUNOZ MARIN 1C-8, SAN JUAN, PR	14.19 BLS	11/10/2021	40.0	North Coast Limestone Aquifer, Upper

CTS Group, Inc.

▲ 4 [182445066043401](#)

PIEZOMETER ALSACIA II-6 SAN JUAN, PR

6.96 BLS 11/10/2021 27

TFS-11-021
Valley Alluvium

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*References to non-Department of the Interior (DOI) products do not constitute an endorsement by the DOI.

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U.S. Department of the Interior | U.S. Geological Survey

URL: <https://groundwaterwatch.usgs.gov/countymap.asp>

Last update: Thursday, March 4, 2021 at 13:30

Page Contact Information: [Contact the GroundWater Watch Support Team](#)



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TFS-11-021

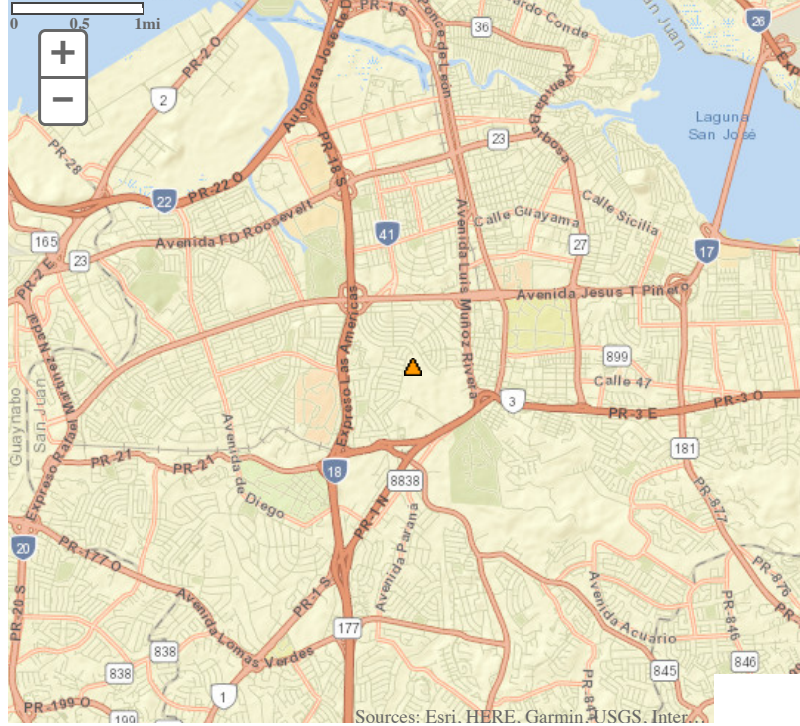


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Site Number: 182406066034700 - PIEZOMETER JARDIN BOTANICO III-19 SAN JUAN, PR



DESCRIPTION:

Latitude 18°24'06", Longitude 66°03'47" NAD27
 San Juan Municipio, Puerto Rico, Hydrologic Unit 21010005
 Well depth: 48 feet
 Hole depth: 48 feet
 Land surface altitude: 32feet above NGVD29.
 Well completed in "North Coast Limestone aquifer system (Puerto Rico)" (N400NCSTLM) national aquifer.
 Well completed in "Valley Alluvium" (111VLAV) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Daily Data			
Depth to water level, feet below land surface	1991-06-13	2002-10-17	4023
Field groundwater-level measurements	1989-03-31	2021-11-10	296
Field/Lab water-quality samples			
Water-Year Summary	2006	2013	7

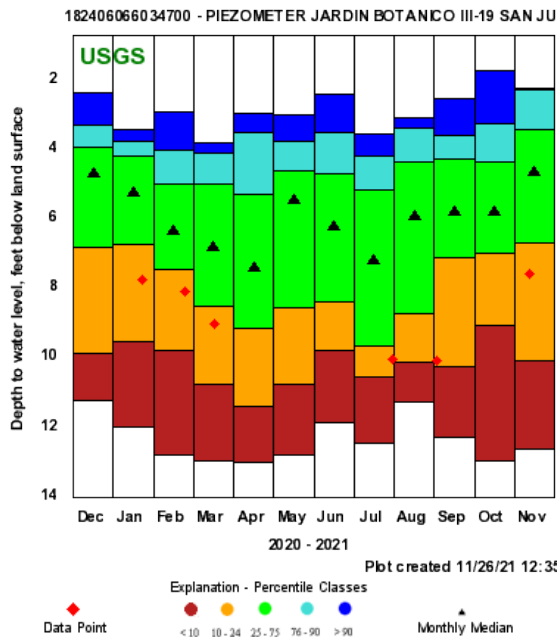
Additional Data Sources	Begin Date	End Date	Count
Groundwater Watch **offsite**	1989	2021	4316

OPERATION:

Record for this site is maintained by the USGS Puerto Rico Water Science Center
 Email questions about this site to [Puerto Rico Water Science Center Water-Data Inquiries](#)

[Groundwater Watch Help Page](#)

Site Statistics



Most recent data value: 7.66 on 11/10/2021
Period of Record Monthly Statistics for 182406066034700
Depth to water level, feet below land surface
All Approved Continuous & Periodic Data Used In Analysis
 Note: **Highlighted** values in the table indicate closest statistic to the most recent data value.

Month	Lowest Median	10th %ile	25th %ile	50th %ile	75th %ile	90th %ile	Highest Median	Number of Years
Jan	12.06	9.59	6.80	5.32	4.26	3.83	3.51	27
Feb	12.88	9.87	7.53	6.41	5.08	4.08	2.99	26
Mar	13.04	10.83	8.58	6.88	5.08	4.18	3.87	27
Apr	13.09	11.46	9.20	7.48	5.36	3.57	3.04	25
May	12.87	10.84	8.61	5.55	4.67	3.82	3.09	28
Jun	11.91	9.86	8.44	6.29	4.78	3.60	2.50	29
Jul	12.52	10.63	9.74	7.26	5.25	4.25	3.61	27
Aug	11.34	10.21	8.78	5.98	4.45	3.44	3.18	26
Sep	12.34	10.30	7.18	5.86	4.33	3.68	2.63	27
Oct	13.05	9.12	7.04	5.86	4.45	3.34	1.79	27
Nov	12.71	10.17	6.78	4.72	3.50	2.36	2.33	24
Dec	11.30	9.92	6.87	4.76	4.02	3.38	2.45	23

Statistics Options

[View month/year statistics](#)

CTS Group, Inc.

TFS-11-021

Daily Groundwater Data




Most recent Approved daily data value: **3.55** on **10/17/02**

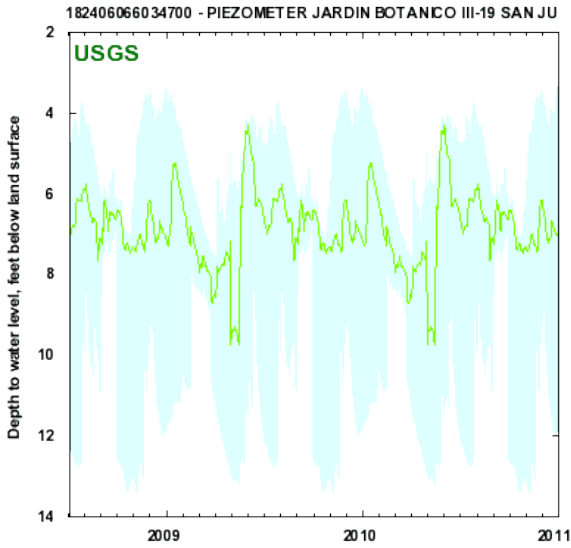
Summary for Period of Continuous Record
Depth to water level, feet below land surface

Approved Daily Values Data Used in Analysis

Begin Date	End Date	Days	% Complete					
06/13/91	10/17/02	4,023	97					
Lowest Level	5th %ile	10th %ile	25th %ile	50th %ile	75th %ile	90th %ile	95th %ile	Highest Level
13.43	11.90	10.91	9.10	7.10	5.49	4.33	3.84	2.10

Daily Data Options

-  View data in calendar format
-  Download data in text format
-  View daily medians



Plot created: 10/3/2010 14:59
 Approved Daily Data (green line), Provisional Daily Data (red line), Historical Daily Median (dotted green line), Range of Min & Max (light blue shaded area)



Periodic Groundwater Data

Summary for Period of Record Periodic Water Levels
Depth to water level, feet below land surface

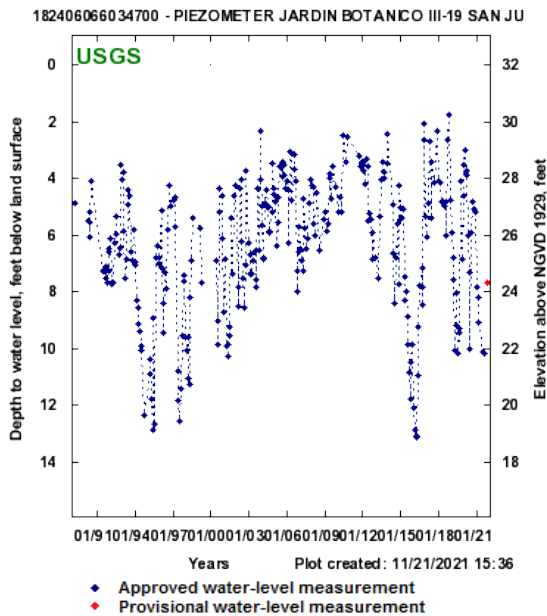
Approved Periodic Water Level Values

Begin Date	End Date	Number of Values	
03/31/89	11/10/21	294	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
1.79	10/23/18	13.09	04/25/16

Groundwater Levels Options

-  View latest data on NWISWeb
-  Download groundwater levels in text format

Note: The most recent measurement on 11/10/2021 has the following status:



Plot created: 11/21/2021 15:36
 Approved water-level measurement (blue diamond), Provisional water-level measurement (red diamond)

Period of Record - All Data Types

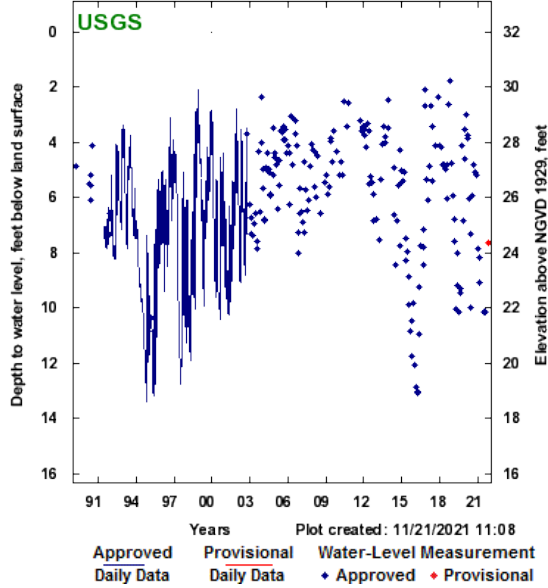
Summary for Period of Record - All Data Types

TFS-11-021

CTS Group, Inc.

Depth to water level, feet below land surface

182406066034700 - PIEZOMETER JARDIN BOTANICO III-19 SAN JU



Begin Date	End Date	Number of Values	
03/31/89	11/10/21	4,318	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
1.79	10/23/18	13.43	11/08/94

Period of Record Options

- View latest data on NWISWeb for all data types
- View month/year statistics
- Download groundwater levels in text format of all data types

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U.S. Department of the Interior | U.S. Geological Survey

URL: <https://groundwaterwatch.usgs.gov/AWLSites.asp>

Last update: Monday, March 8, 2021 at 14:43

Page Contact Information: [Contact the GroundWater Watch Support Team](#)



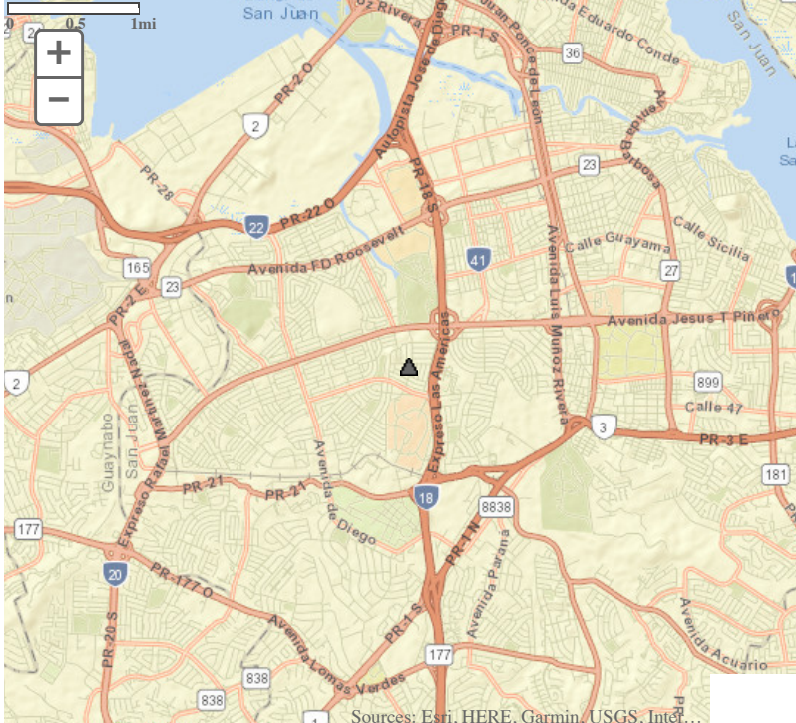


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Site Number: 182417066042701 - PIEZOMETER LAS AMERICAS II-10, SAN JUAN, PR



DESCRIPTION:

Latitude 18°24'17", Longitude 66°04'27" NAD27
 San Juan Municipio, Puerto Rico, Hydrologic Unit 21010005
 Well depth: 52.0 feet
 Hole depth: 52.0 feet
 Land surface altitude: 23.69feet above NGVD29.
 Well completed in "North Coast Limestone aquifer system (Puerto Rico)" (N400NCSTLM) national aquifer.
 Well completed in "North Coast Limestone Aquifer, Upper" (122NRCSU) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1989-06-21	2021-11-10	113
Field/Lab water-quality samples			

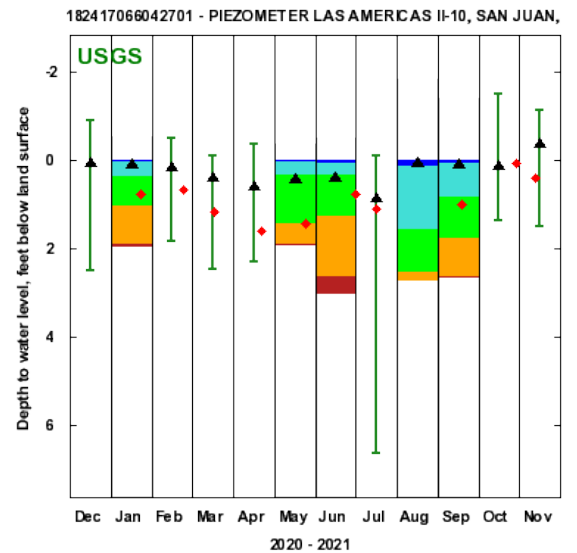
Additional Data Sources	Begin Date	End Date	Count
Groundwater Watch **offsite**	1989	2021	110
Annual Water-Data Report (pdf) **offsite**	2012	2013	2

OPERATION:

Record for this site is maintained by the USGS Puerto Rico Water Science Center
 Email questions about this site to [Puerto Rico Water Science Center Water-Data Inquiries](#)

[Groundwater Watch Help Page](#)

Site Statistics



Most recent data value: 0.41 on 11/10/2021
Period of Record Monthly Statistics for 182417066042701
Depth to water level, feet below land surface
All Approved Continuous & Periodic Data Used In Analysis
 Note: **Highlighted** values in the table indicate closest statistic to the most recent data value.

Month	Lowest Median	10th %ile	25th %ile	50th %ile	75th %ile	90th %ile	Highest Median	Number of Years
Jan	1.46	1.39	0.53	0.11	-0.12	-0.48	-0.51	10
Feb	1.85	-	-	-	-	-	-0.50	8
Mar	2.47	-	-	-	-	-	-0.10	9
Apr	2.29	-	-	-	-	-	-0.35	7
May	1.58	1.57	1.10	0.43	-0.00	-0.32	-0.35	10
Jun	2.57	2.15	0.78	0.40	-0.15	-0.42	-0.48	12
Jul	6.63	-	-	-	-	-	-0.09	8
Aug	0.92	0.91	0.72	0.09	-0.25	-1.69	-1.82	10
Sep	1.30	1.27	0.38	0.10	-0.55	-1.31	-1.38	10
Oct	1.37	-	-	-	-	-	-1.50	7
Nov	1.49	-	-	-	-	-	-1.13	9
Dec	2.52	-	-	-	-	-	-0.88	6

Statistics Options

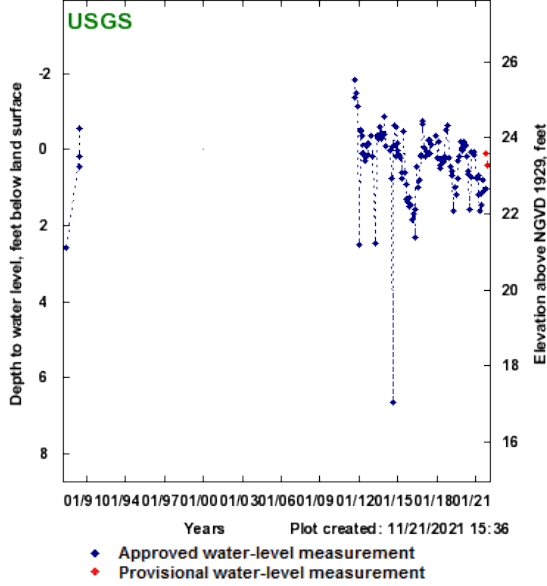
[View month/year statistics](#)

CTS Group, Inc.

TFS-11-021

Periodic Groundwater Data

182417066042701 - PIEZOMETER LAS AMERICAS II-10, SAN JUAN,



Summary for Period of Record Periodic Water Levels

Depth to water level, feet below land surface

Approved Periodic Water Level Values

Begin Date	End Date	Number of Values	
06/21/89	11/10/21	113	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
-1.82	08/30/11	6.63	07/30/14

Groundwater Levels Options

[View latest data on NWISWeb](#)

[Download groundwater levels in text format](#)

Note: The most recent measurement on 11/10/2021 has the following status:

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URL: <https://groundwaterwatch.usgs.gov/AWLSites.asp>

Last update: Monday, March 8, 2021 at 14:43

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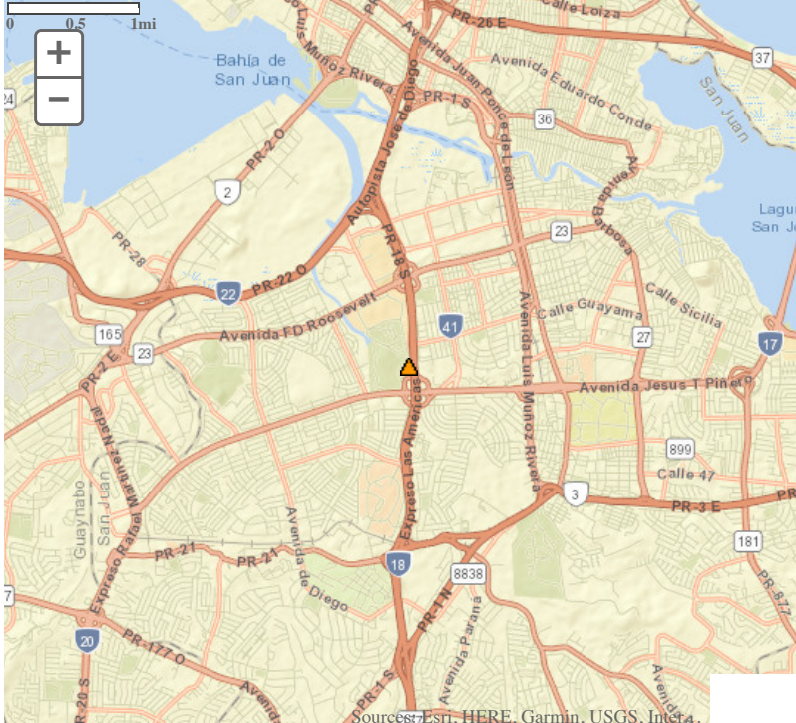


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Site Number: 182443066041502 - PIEZOMETER MUNOZ MARIN 1C-8, SAN JUAN, PR



DESCRIPTION:

Latitude 18°24'43", Longitude 66°04'15" NAD27
 San Juan Municipio, Puerto Rico, Hydrologic Unit 21010005
 Well depth: 40.0 feet
 Hole depth: 40.0 feet
 Land surface altitude: 16.0feet above NGVD29.
 Well completed in "North Coast Limestone aquifer system (Puerto Rico)" (N400NCSTLM) national aquifer.
 Well completed in "North Coast Limestone Aquifer, Upper" (122NRCSU) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Daily Data			
Depth to water level, feet below land surface	1989-05-13	2002-09-12	4437
Field groundwater-level measurements	1989-02-09	2021-11-10	262
Field/Lab water-quality samples			
Water-Year Summary	2012	2013	2

Additional Data Sources	Begin Date	End Date	Count
Groundwater Watch **offsite**	1989	2021	4691

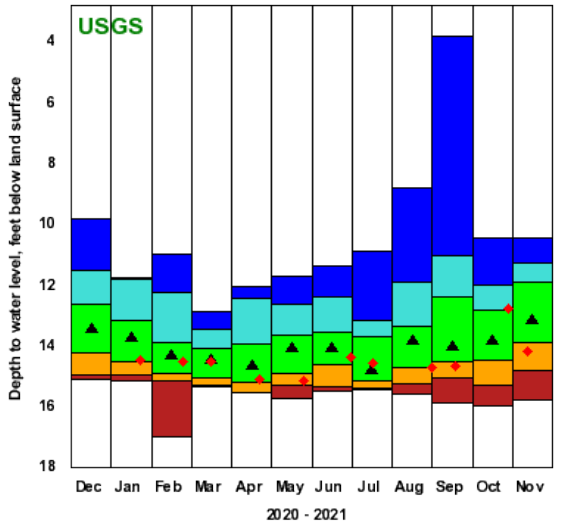
OPERATION:

Record for this site is maintained by the USGS Puerto Rico Water Science Center
 Email questions about this site to [Puerto Rico Water Science Center Water-Data Inquiries](#)

[Groundwater Watch Help Page](#)

Site Statistics

182443066041502 - PIEZOMETER MUNOZ MARIN 1C-8, SAN JUAN, P



Most recent data value: 14.19 on 11/10/2021
Period of Record Monthly Statistics for 182443066041502
Depth to water level, feet below land surface
All Approved Continuous & Periodic Data Used In Analysis
 Note: **Highlighted** values in the table indicate closest statistic to the most recent data value.

Month	Lowest	10th	25th	50th	75th	90th	Highest	Number of Years
	Median	%ile	%ile	%ile	%ile	%ile	Median	
Jan	15.18	14.99	14.52	13.79	13.18	11.82	11.80	22
Feb	17.03	15.15	14.94	14.36	13.93	12.26	11.03	22
Mar	15.36	15.34	15.08	14.47	14.09	13.46	12.88	21
Apr	15.58	15.54	15.23	14.70	13.94	12.47	12.06	18
May	15.73	15.33	14.94	14.09	13.68	12.63	11.72	24
Jun	15.51	15.39	14.62	14.12	13.58	12.41	11.41	24
Jul	15.45	15.40	15.17	14.84	13.74	13.21	10.90	22
Aug	15.62	15.25	14.74	13.86	13.36	11.95	8.81	24
Sep	15.90	15.07	14.54	14.04	12.41	11.04	3.82	23
Oct	15.98	15.32	14.51	13.86	12.84	12.03	10.49	20
Nov	15.78	14.81	13.90	13.17	11.91	11.29	10.49	22
Dec	15.12	14.99	14.24	13.48	12.67	11.53	9.82	18

Statistics Options

[View month/year statistics](#)

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TFS-11-021

Daily Groundwater Data

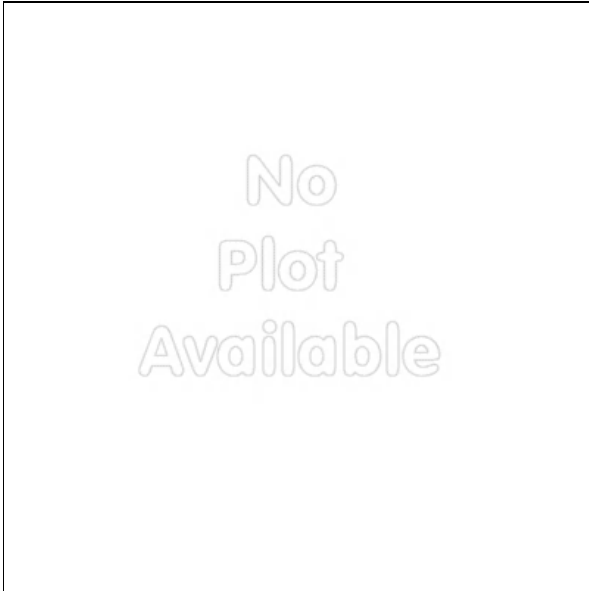
Most recent Approved daily data value: **14.80** on **09/12/02**

Summary for Period of Continuous Record
Depth to water level, feet below land surface
Approved Daily Values Data Used in Analysis

Begin Date	End Date	Days	% Complete					
05/13/89	09/12/02	4,437	91					
Lowest Level	5th %ile	10th %ile	25th %ile	50th %ile	75th %ile	90th %ile	95th %ile	Highest Level
16.18	15.50	15.34	15.00	14.31	13.60	12.72	12.07	-7.28

Daily Data Options

- View data in calendar format
- Download data in text format
- View daily medians



Periodic Groundwater Data

Summary for Period of Record Periodic Water Levels
Depth to water level, feet below land surface

Approved Periodic Water Level Values

Begin Date	End Date	Number of Values	
02/09/89	11/10/21	257	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
8.81	08/30/11	17.03	02/09/89

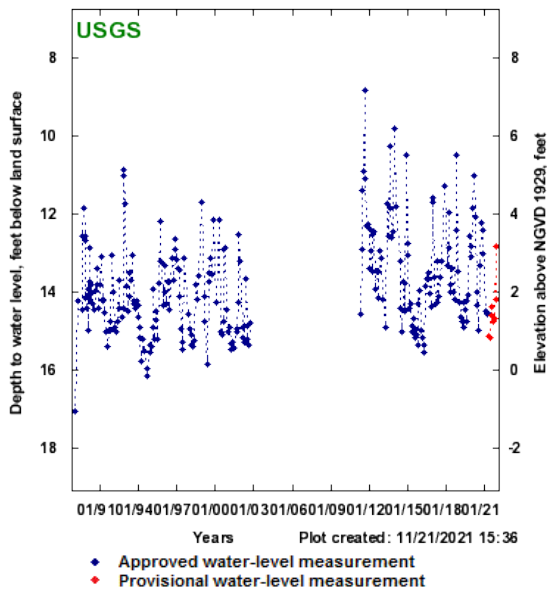
Groundwater Levels Options

- View latest data on NWISWeb
- Download groundwater levels in text format

Note: The most recent measurement on 11/10/2021 has the following status:

"

182443066041502 - PIEZOMETER MUNOZ MARIN 1C-8, SAN JUAN, P



Period of Record - All Data Types

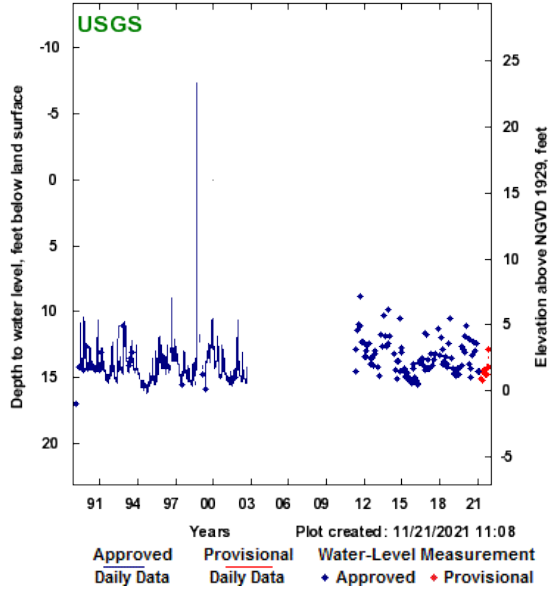
Summary for Period of Record - All Data Types

TFS-11-021

CTS Group, Inc.

Depth to water level, feet below land surface

182443066041502 - PIEZOMETER MUNOZ MARIN 1C-8, SAN JUAN, P



Begin Date	End Date	Number of Values	
02/09/89	11/10/21	4,695	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
-7.28	09/22/98	17.03	02/09/89

Period of Record Options

- View latest data on NWISWeb for all data types
- View month/year statistics
- Download groundwater levels in text format of all data types

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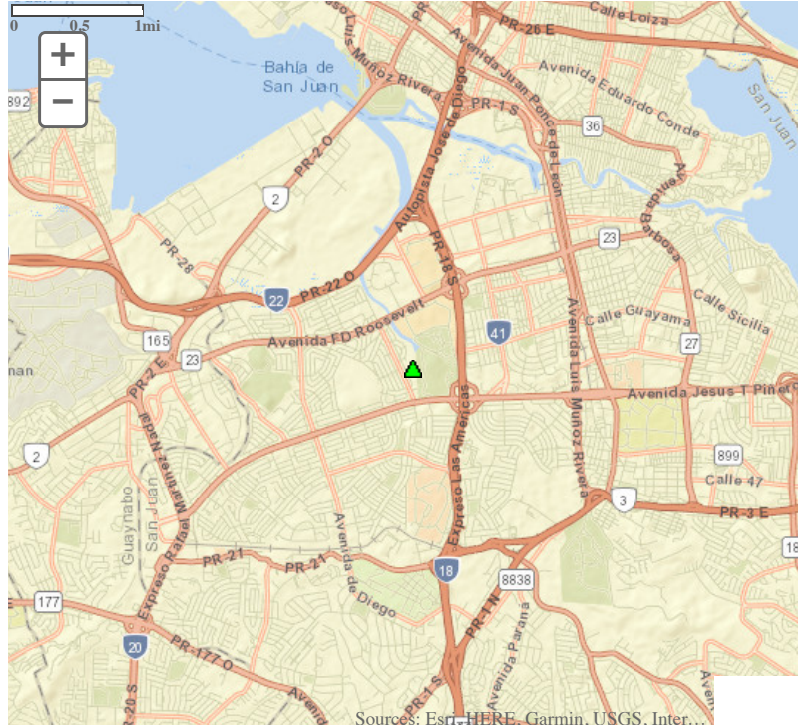


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Site Number: 182445066043401 - PIEZOMETER ALSACIA II-6 SAN JUAN, PR



DESCRIPTION:

Latitude 18°24'45", Longitude 66°04'34" NAD27
 San Juan Municipio, Puerto Rico, Hydrologic Unit 21010005
 Well depth: 27 feet
 Hole depth: 27 feet
 Land surface altitude: 11.5feet above NGVD29.
 Well completed in "North Coast Limestone aquifer system (Puerto Rico)" (N400NCSTLM) national aquifer.
 Well completed in "Valley Alluvium" (111VLAV) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Daily Data			
Depth to water level, feet below land surface	1989-07-15	2002-10-04	3786
Field groundwater-level measurements	1989-07-06	2021-11-10	323
Field/Lab water-quality samples			
Water-Year Summary	2006	2013	8

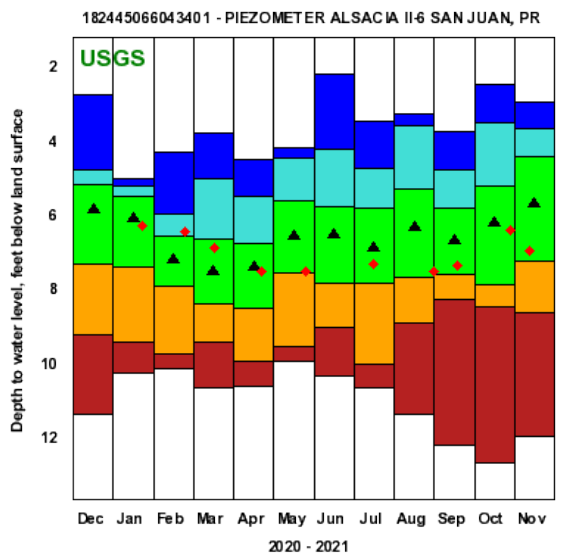
Additional Data Sources	Begin Date	End Date	Count
Groundwater Watch **offsite**	1989	2021	4101

OPERATION:

Record for this site is maintained by the USGS Puerto Rico Water Science Center
 Email questions about this site to [Puerto Rico Water Science Center Water-Data Inquiries](#)

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Site Statistics



Most recent data value: 6.96 on 11/10/2021
Period of Record Monthly Statistics for 182445066043401
Depth to water level, feet below land surface
All Approved Continuous & Periodic Data Used In Analysis
 Note: **Highlighted** values in the table indicate closest statistic to the most recent data value.

Month	Lowest Median	10th %ile	25th %ile	50th %ile	75th %ile	90th %ile	Highest Median	Number of Years
Jan	10.27	9.40	7.41	6.09	5.49	5.21	5.01	28
Feb	10.14	9.74	7.92	7.18	6.56	5.97	4.30	24
Mar	10.63	9.40	8.40	7.50	6.63	5.01	3.78	26
Apr	10.61	9.94	8.51	7.40	6.77	5.50	4.49	24
May	9.95	9.53	7.55	6.55	5.61	4.46	4.18	29
Jun	10.33	9.03	7.82	6.52	5.75	4.21	2.19	28
Jul	10.65	10.02	7.83	6.88	5.82	4.74	3.44	27
Aug	11.36	8.90	7.68	6.31	5.27	3.59	3.26	28
Sep	12.21	8.25	7.57	6.69	5.79	4.76	3.72	27
Oct	12.67	8.46	7.86	6.18	5.21	3.48	2.47	25
Nov	11.97	8.63	7.24	5.69	4.41	3.64	2.95	25
Dec	11.36	9.23	7.33	5.83	5.17	4.75	2.73	24

Statistics Options

[View month/year statistics](#)

CTS Group, Inc.

TFS-11-021

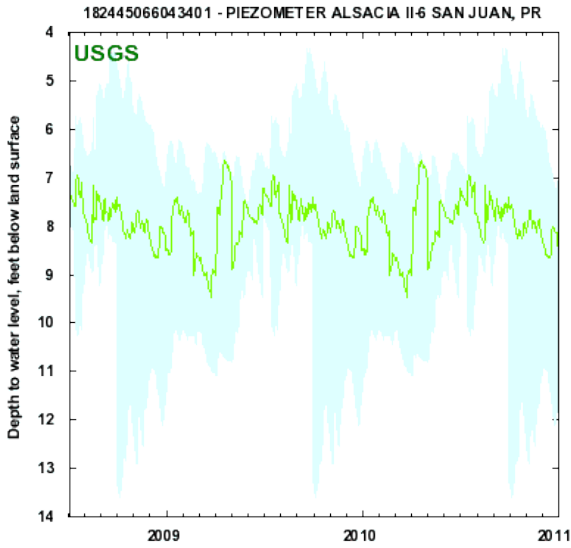
Daily Groundwater Data

Most recent Approved daily data value: **6.49** on **10/04/02**

Summary for Period of Continuous Record
 Depth to water level, feet below land surface
Approved Daily Values Data Used in Analysis

Begin Date	End Date	Days	% Complete					
07/15/89	10/04/02	3,786	78					
Lowest Level	5th %ile	10th %ile	25th %ile	50th %ile	75th %ile	90th %ile	95th %ile	Highest Level
13.60	10.65	10.09	8.76	7.80	6.86	5.83	5.22	3.11

- Daily Data Options**
- View data in calendar format
 - Download data in text format
 - View daily medians



Plot created: 10/3/2010 14:59
 Approved Daily Data | Provisional Daily Data | Historical Daily Median | Range of Min & Max

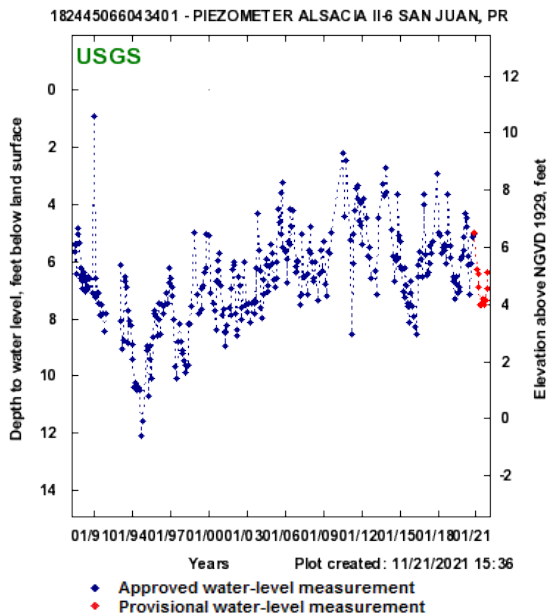
Periodic Groundwater Data

Summary for Period of Record Periodic Water Levels
 Depth to water level, feet below land surface
Approved Periodic Water Level Values

Begin Date	End Date	Number of Values	
07/06/89	11/10/21	318	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
0.89	12/19/90	12.12	09/14/94

- Groundwater Levels Options**
- View latest data on NWISWeb
 - Download groundwater levels in text format

Note: The most recent measurement on 11/10/2021 has the following status:



Plot created: 11/21/2021 15:36
 ♦ Approved water-level measurement
 ♦ Provisional water-level measurement

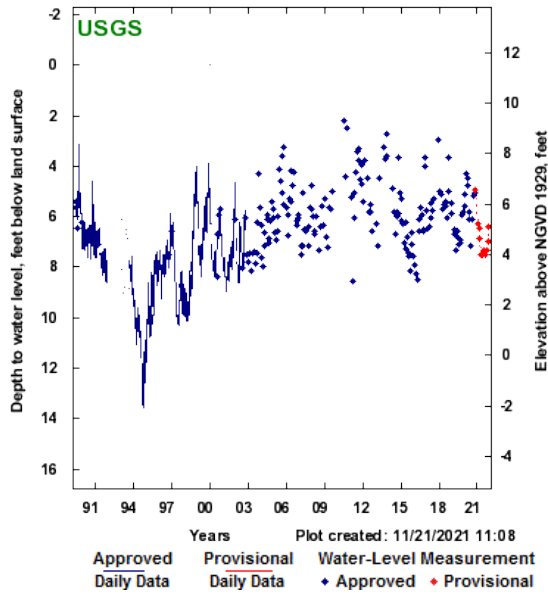
Period of Record - All Data Types

Summary for Period of Record - All Data Types

CTS Group, Inc.

TFS-11-021

182445066043401 - PIEZOMETER ALSACIA II-6 SAN JUAN, PR



Depth to water level, feet below land surface

Begin Date	End Date	Number of Values	
07/06/89	11/10/21	4,105	
Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
0.89	12/19/90	13.6	10/06/94

Period of Record Options

- View latest data on NWISWeb for all data types
- View month/year statistics
- Download groundwater levels in text format of all data types

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Appendix IV
Leaking Underground Storage Tanks
(LUST) and Registered Underground
Storage Tanks (UST)

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
Southwest health corporation	2-900064	Closure	HOSPITAL CENTRO DE SALUD SAN	JAVILLA STREET	San German	Other
JOSE E. FERRER ROMAN	2-910144	Amended	JOSE E. FERRER ROMAN- EST.2253	RD 102 KM 0.2	San German	Gas Station
FILIBERTO MARTINEZ RAMOS	2-860926	Amended	CHIN SHELL SERVICE STATION 00274	RD 102 KM 26.4	San German	Gas Station
CIA PETROLERA CARIBE INC	2-860739	Amended	Gasolineras CARIBE	RD #2 KM 171.6	San German	Gas Station
Arturo Alvarez	2-910108	Amended	Estacion #3310	LUNA ST. #15	San German	Gas Station
TEXACO PUERTO RICO INC	2-861857	Amended	MAYZIE GARCES # 613	LUNA ST. #123	San German	Utilities
PUERTO RICO TELEPHONE CO	2-890063	Amended	SAN GERMAN C.O.	ESPERANZA ST. #1	San German	Utilities
PUERTO RICO TELEPHONE CO	2-890064	Closure	TALLER DE MECANICA AUTOMOTRIZ	RD 102 RAMAL 118 LA TEA	San German	Utilities
Autoridad de Energia Electrica	2-860754	Amended	COOPERVISION PHARMACEUTICALS	STATE ROAD 362 KM. 9	San German	Industrial
COOPERVISION	2-860116	Closure	HOSPITAL DE LA CONCEPCION	LUNA ST. # 41	San German	Other
HOSPITAL DE LA CONCEPCION	2-880075	Closure	PANADERIA CARMEN	LUNA ST. # 143	San German	Not Listed
JOSE A LUGO RODRIGUEZ	2-900036	New	Edificio San Vicente de Paul	Carr. # 2 km 173.4	San German	Other
HOSPITAL DE LA CONCEPCION	2-020037	Amended	Hospital de la Concepcion	Carr. # 2 km 173.4	San German	Other
Hector M. Lorenzo	2-980090	Amended	Garaje T exxas	Carr. 2 Km. 170.9	San German	Gas Station
COMPANIA DE FOMENTO	2-980032	Closure	DIGITAL (S-0373-0-56)	Calle A Parque Industrial Ernesto Quiriones	San German	Industrial
PUERTO RICO TELEPHONE CO	2-890009	Amended	HOCONUCO REMOTO	RD. 119 KM 4.3	San German	Utilities
AUTORIDAD DE EDIFICIOS	2-020002	Closure	Quartel de la Policia San German	Avenida Angel Castro Perez	San German	State Government
TEXACO PUERTO RICO INC	2-861854	Amended	ERRAIN SAMBOLN S/S #638	LUNA ST. #8	San German	Gas Station
DIGITAL EQUIPMENT CORP.	2-860407	Closure	DIGITAL EQUIPMENT CORP.	RD 362 KM 1.0	San German	Industrial
DEPARTAMENTO DE EDUCACION	2-940230	Closure	ESC.LOLA RODRIGUEZ DE TIO	DR. VEVE AVE.	San German	State Government
TEXACO PUERTO RICO INC	2-861807	Amended	SAN GERMAN S/S #651	RD. 102. KM. 33.6	San German	Gas Station
TEXACO PUERTO RICO INC	2-861868	Amended	EDDIE RAMIREZ S/S #691	RD. #119. KM. 40.0	San German	Gas Station
Total Petroleum Puerto Rico Corp.	2-910100	Amended	Total #2293	RD 318 KM 1.9	San German	Gas Station
Victor Torres Perez	2-861204	Amended	Victory Midway S/S	RD. 2 KM. 177.2 Bo Guama	San German	Gas Station
SOL PUERTO LIMITED	2-860922	Amended	SHELL S/S #001058	JAVILLA ST. #12	San German	Gas Station
Carlos I. Rodriguez Martinez	2-861839	Amended	garaje IBO Inc (Ex #627)	RD 102 KM 36.6	San German	Gas Station
ESSO STANDARD OIL CO PR	2-861200	Amended	ESSO S/S CO-371	LUNA ST. #22	San German	Gas Station
UNIVERSIDAD INTERAMERICANA	2-940139	Closure	UNIVERSIDAD INTERAMERICANA DE	Calle Luna	San German	Other
SUPERMERCADO LOS PRIMOS INC.	2-900083	New	SUPERMERCADO LOS PRIMOS INC.	JAVILLA ST. #33	San German	Commercial
ESSO STANDARD OIL CO PR	2-861201	Amended	ESSO S/S CO-372	RD. 119. KM. 3	San German	Gas Station
Autoridad de Acueductos y	2-920064	Closure	PLANTA ALCANTARILLADO VIEJA SAN	RD. 360 KM. 1.4	San German	Utilities
Eduardo Ruiz Valentin	2-960075	Amended	All Star (Antes GOMERA DEL OESTE)	CARR. 114 KM. 13.5	San German	Gas Station
Caribbean Petroleum Corporation	2-860201	Closure	GULF S/S #183	ROAD #122	San German	Gas Station
AUTORIDAD DE CARRETERAS	2-930071	Amended	AUTORIDAD CARRETERAS	ESPERANZA ST. #1	San German	Gas Station
MUNICIPIO DE SAN GERMAN	2-940186	Amended	MUNICIPIO DE SAN GERMAN OBRAS	RD. 362 KM. 3.0	San German	State Government
WALLACE INTERNATIONAL OF PR	2-861986	Closure	WALLACE INTERNATIONAL OF PR INC.	B STREET	San German	Not Listed
Total Petroleum Puerto Rico Corp.	2-910057	Amended	Total Petroleum #1116	RD.# 2 KM 174.3	San German	Gas Station
Caribbean Petroleum Corporation	2-860277	Amended	GULF S/S #056	Ave. A. Castro Carr. 122 Int. 362	San German	Gas Station
OFICINA DEL GOBERNADOR-	2-940123	Closure	OFICINA DEL GOBERNADOR-	La Fortaleza	San Juan	State Government
CIA PETROLERA CARIBE INC	2-970002	Amended	Truck Stop Caribe	Ave. C Zona Portuaria	San Juan	Gas Station
AUTORIDAD DE CARRETERAS	2-030016	Closure	Boulevard Baldorioty de Castro	Carr 26	San Juan	Other
Isabelo Molina	2-020027	Closure	Federacion de Alcaldes	Ave. Ponce de León # 309	San Juan	Commercial
US ARMY CORPS OF ENGINEERS	2-970017	Closure	San Cristobal	Old San Juan	San Juan	Federal Non-Military

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
SOL PUERTO LIMITED	2-860807	Closure	P.H. INTERNATIONAL	EL CONVENTO HOTEL	San Juan	Other
EER ISUZU DE P.R., INC.	2-990060	Closure	EER ISUZU DE P.R., INC.	AVE KENNEDY KM. 3.9	San Juan	Auto Dealership
SAN JUAN BAY MARINA	2-960030	New	SAN JUAN BAY MARINA	PDA. 10 1/2 AVE.FERNANDEZ JUNCOS	San Juan	Commercial
Autoridad de Vivienda Publica de P.R.	2-000039	Closure	Residencial Las Acaacias	Ave. Fernandez Juncos Esq. Matias Ledesma	San Juan	Other
CLUB NAUTICO DE SAN JUAN	2-910295	Amended	CLUB NAUTICO DE SAN JUAN	FERNANDEZ JUNCOS AVE. STOP 9 1/2	San Juan	Other
SOL PUERTO LIMITED	2-860774	Closure	ABARCA WAREHOUSE CORP.	MIRAMAR	San Juan	Not Listed
DEPT. OF HEALTH AND HUMAN	2-010016	Closure	FOOD & DRUG ADMINISTRATION	AVE. FERNANDEZ JUNCOS #466	San Juan	Federal Non-Military
Corporacion de Desarrollo Hotelero de	2-980035	Closure	Centro de Convenciones de San Juan	Ave. Ashford Condado	San Juan	Other
PUERTO RICO NATIONAL GUARD	2-960019	Closure	PR NATIONAL GUARD	AVE.FERNANDEZ JUNCOS STOP 22	San Juan	Federal Military
ESSO STANDARD OIL CO PR	2-861420	Closure	ANTILLES SHIPPING	PORT #8, FERNANDEZ JUNCOS AVE.	San Juan	Commercial
TRAILER MARINE TRANSPORT	2-880066	Closure	TRAILER MARINE TRANSPORT	ISLA GRANDE TERMINAL	San Juan	Other
ESSO STANDARD OIL CO PR	2-861422	Closure	UNIVERSAL AVIATION	ISLA GRANDE	San Juan	Not Listed
PUERTO RICO TELEPHONE CO	2-890092	Amended	Remoto Viejo San Juan	COVADONGA ST.	San Juan	Utilities
TEXACO PUERTO RICO INC.	2-861582	Amended	Texaco Stop 6 1/2 S/S # 223	FERNANDEZ JUNCOS AVE. STOP 6 1/2	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860404	Amended	GULF S/ S #456	FERNANDEZ JUNCOS AVE. Puerta de Tierra	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861803	Closure	TEXACO PUERTO RICO INC.	MARINA #1	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861568	Closure	Texaco Puerta De Tierra S/S	FERNANDEZ JUNCOS AVE. MARINA ST	San Juan	Gas Station
AUXILIO MUTUO HOSPITAL	2-880085	Closure	AUXILIO MUTUO HOSPITAL	PONCE DE LEON AVE.	San Juan	Other
AUTORIDAD DE EDIFICIOS	2-930047	Closure	EDIF. INTENDENTE A RAMIREZ	STOP 1 PASEO COVADONGA	San Juan	State Government
SOL PUERTO LIMITED	2-860876	Amended	SHELL S/S #000124	PONCE DE LEON AVE. #351 Pda 6 1/2	San Juan	Gas Station
TREBOL MOTORS	2-930072	New	TREBOL MOTORS	FERNANDEZ JUNCOS AVE. STOP 7 1/2	San Juan	Auto Dealership
Corporacion Desarrolladora de	2-030014	Amended	ACERVO	Ave. Barbosa	San Juan	Other
US COAST GUARD BASE SAN JUAN	2-861903	New	US COAST GUARD BASE SAN JUAN	Calle La puntilla #1	San Juan	Federal Non-Military
DEPARTAMENTO DE EDUCACION	2-950038	Closure	ESCUELA GUSTAVO ADOLFO	FRANCIA ST. CORNER ARECIBO	San Juan	State Government
ESSO STANDARD OIL CO PR	2-861073	Amended	ESSO S/S CO-005	PONCE DE LEON AVE. PDA. 5 Puerta de Tierra	San Juan	Gas Station
SOL PUERTO LIMITED	2-861013	Closure	SHELL SERVICE STATION #000043	FERNANDEZ JUNCOS AVE.	San Juan	Gas Station
PUERTO RICO TELEPHONE CO	2-880076	Closure	Antiguo Edificio Lotena	MUNOZ RIVERA AVE., OLD BUILDING	San Juan	Utilities
ESSO STANDARD OIL CO PR	2-861121	Closure	ESSO SERVICE STATION CO 010	PONCE DE LEON AVE.	San Juan	Gas Station
PUERTO RICO TELEPHONE CO	2-920042	Closure	CASA GRANDE RSB	PONCE DE LEON AVE. STOP 16	San Juan	Utilities
MOTOROLA DE PUERTO RICO	2-920042	Closure	MOTOROLA	PASEO COVADONGA #150	San Juan	Industrial
US ARMY CORPS OF ENGINEERS	2-930033	Closure	US ARMY CORPS OF ENGINEERS	400 FERNANDEZ JUNCOS AVE	San Juan	Federal Non-Military
BANCO POPULAR DE P.R.	2-940196	Closure	BANCO POPULAR DE P.R.	MUNOZ RIVERA AVE. #268	San Juan	Other
DEPARTAMENTO DE EDUCACION	2-9610250	Closure	ESC. CENTRAL HIGH	PONCE DE LEON AVE.	San Juan	State Government
TEXACO PUERTO RICO INC.	2-861557	Amended	Texaco- Hato Rey S/S #212	PONCE DE LEON AVE. #73 Hato Rey	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-8611271	Amended	Texaco # 320 Pedro Cabrera S/S	BARBOSA ST.	San Juan	Gas Station
SOL PUERTO LIMITED	2-860835	Closure	COOP. PESCADORES DE LA	LA PUNTILLA	San Juan	Not Listed
UNIVERSIDAD DE PUERTO RICO	2-861988	Closure	Universidad Puerto Rico-Recinto Rio	PONCE DE LEON AVE.	San Juan	Other
AUTORIDAD DE EDIFICIOS	2-930044	Closure	CENTRO JUDICIAL DE SAN JUAN	MUNOZ RIVERA AVE.	San Juan	State Government
SOL PUERTO LIMITED	2-860629	Closure	SHELL SERVICE STATION #804770	COMERCIO ST. #40	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-860701	Closure	Texaco- Capital Transportation	KENNEDY AVE., RD. #2 KM 2.5	San Juan	Truck/Transporter
ESSO STANDARD OIL CO PR	2-861437	Amended	CARIBE HILTON HOTEL	SAN GERONIMO GROUNDS	San Juan	Commercial
SOL PUERTO LIMITED	2-860773	Closure	CLINICA JULIA	PONCE DE LEON AVE. #337	San Juan	Not Listed
SOL PUERTO LIMITED	2-860700	Closure	Shell Site PR. Marine Management	ZONA PORTUARIA	San Juan	Industrial
ESSO STANDARD OIL CO PR	2-861418	Closure	GOMEZ HNOS INC.	MUNOZ RIVERA AVE. PDA. 35	San Juan	Auto Dealership

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
Mora Development SE	2-040006	Closure	Capitlio Plaza Project	Ave. Fernández Junco Esq. Gilberto Concepción de MUYOZ RIVERA AVE.	San Juan	Residential
SOL PUERTO LIMITED	2-860778	Closure	CARIBE MOTORS, INC.	Calle Comercio Esq. Calle tanca	San Juan	Not Listed
GENERAL SERVICES ADM.	2-060003	Closure	Jose V Toledo Federal Building and El Morro	old San Juan	San Juan	Not Listed
US ARMY CORPS OF ENGINEERS	2-970016	Closure	GPR 7	PONCE DE LEON AVE.	San Juan	Federal Non-Military
Total Petroleum Puerto Rico Corp.	2-910065	Closure	ESSO S/S CO-011	Calle Paz Granela # 1421 Urb Santiago Iglesias	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861122	Amended	GULF S/S #069	RD 844 KM 2.1	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860455	Amended	GULF #027	RD. 176 KM. 1.5 Cupey Alto	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860258	Amended	ESSO S/S CO-218	RD. 842 KM. 1.2 BO. Caimito Abajo	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861144	Amended	ESSO S/S CO-209	CLAUDIO ST. #373 Urb. Sagrado Corazon	San Juan	Gas Station
Caribbean Petroleum Corporation	2-861143	Amended	Gulf S/S #094	RD. 176. KM. 3.8 Cupey Alto	San Juan	Gas Station
Manual Mejia	2-860299	Amended	VILLA ANDALUCIA S/S # 372	FRONTERA ST. CORNER RONDA ST.	San Juan	Gas Station
Caribbean Petroleum Corporation	2-861742	Amended	GULF #116	Calle Emilio Pol Esq. Santa Rosa Centro Comercial La GUAYAMA ST.	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-860316	Amended	ESSO SERVICE STATION COB 039	MUÑOZ RIVERA AVE. #761	San Juan	Gas Station
SOL PUERTO LIMITED	2-861135	Closure	SHELL SERVICE STATION #804746	PIER #14	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-860660	Closure	P.R. DRYDOCK MARINE CORP.	DE DIEGO AVE.	San Juan	Not Listed
HORACIO PASTRANA	2-861677	Closure	COND. VILLAS DEL SEÑORIAL	WINSTON CHURCHILL AVE. #2413	San Juan	Gas Station
FORMER U.S. NAVAL HOSPITAL	2-940049	New	FORMER U.S. NAVAL HOSPITAL	SAN PATRICIO HOUSING COMPOUND	San Juan	Other
JORGE ARGUELLES MORAN	2-990044	Amended	INTERISLAND PETROLEUM	RD. #1, KM. 22.0	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-860633	Amended	ESSO S/S 77219	1 ST. CORNER TIZOL	San Juan	Gas Station
DE DIEGO APARTMENTS	2-940035	Closure	APARTAMENTOS DE DIEGO	DE DIEGO AVE. #575	San Juan	Residential
ESSO STANDARD OIL CO PR	2-861129	Amended	ESSO S/S CO-023	ROOSEVELT AVE. 1314	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861757	Amended	HYDE PARK S/S #200	MUÑOZ RIVERA AVE. #871	San Juan	Gas Station
Agustin Perez Rodriguez	2-861105	Amended	EX ESSO S/S CO-182	Ave. 65 de Infantería km. 1.8 Urb San Agustin	San Juan	Gas Station
MUNICIPIO DE SAN JUAN / DPTO.	2-940293	Closure	COMPLEJO MEDICO SOCIAL-BORICUA MOTORS, INC.	AVE. 65 INFANTERIA DETRAS DEL PARQUE DE KM. 3.7, 65 INFANTRY AVE.	San Juan	Local Government
SOL PUERTO LIMITED	2-860823	Closure	Estación de Gasolina Independiente	Ave. Julio Andino # 582	San Juan	Not Listed
Pedro J. González	2-010017	Amended	Escuela Lopez Sicardo	Calle Linco Final	San Juan	Gas Station
AUTORIDAD DE EDIFICIOS	2-010003	Closure	CSF DR. A. OLIVERAS GUERRA	CALLE 8 ESQ. 45	San Juan	State Government
MUNICIPIO DE SAN JUAN / DPTO.	2-940290	Closure	AMP INC/PAMCOR	DE DIEGO AVE 677	San Juan	Local Government
AMP INCORPORATED	2-861529	Closure	CARIBBEAN STATIONARY	JULIA IND. PARK	San Juan	Industrial
SOL PUERTO LIMITED	2-860827	Closure	Polideportivo de San Juan	Calle Montellanos Final Esq. Iturregui	San Juan	Not Listed
MUNICIPIO DE SAN JUAN	2-960042	Closure	Vilco Chemicals	Carr. 1 Km. 19.9	San Juan	State Government
Vilco Chemicals	2-970052	New	TREBOL MOTORS	MUÑOZ RIVERA AVE. #857	San Juan	Industrial
TREBOL MOTORS	2-880087	Closure	VENUS GARDENS S/S 388	ACUARIO LESBOS STS.	San Juan	Auto Dealership
TEXACO PUERTO RICO INC	2-861741	Amended	SHELL S/S # 804592	RD 176 KM 5.3	San Juan	Gas Station
SOL PUERTO LIMITED	2-860604	Closure	ESC. EVARISTO RIVERA	#58 ST. CORNER #17	San Juan	Gas Station
DEPARTAMENTO DE EDUCACION	2-940247	Closure	GPR #1227	PARANA ST.	San Juan	State Government
Total Petroleum Puerto Rico Corp.	2-910137	Amended	Borroco S/S	PONCE DE LEON 1368	San Juan	Gas Station
Gregorio Otero Fernandez	2-860593	Amended	PUERTO RICO DUST CONTROL	#1 ST. #13	San Juan	Gas Station
PUERTO RICO DUST CONTROL	2-940068	New	LOM SERVICE STATION	STATE ROAD NO. 1 KM 13.5	San Juan	Commercial
TREN URBANO	2-860592	Closure	GENERAL INVESTMENT S.E.	#1590 PONCE DE LEON AVE.	San Juan	Gas Station
GENERAL INVESTMENT S.E.	2-940081	New	ESSO S/S CO-183	Ave. 65 de Infantería km. 1.2 Urb San Agustin	San Juan	Commercial
ESSO STANDARD OIL CO PR	2-861106	Amended			San Juan	Gas Station

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
SOL PUERTO LIMITED	2-860870	Amended	SHELL S/S # 002933	FAIR VIEW SHOPPING CENTER	San Juan	Gas Station
Total Petroleum Puerto Rico Corp.	2-910077	Amended	GPR #2179	RD #345, LITHEDA SHOPPING CTR.	San Juan	Gas Station
ESTACION EXPERIMENTAL	2-861914	Closure	ESTACION PRINCIPAL	RD #1 KM 1 HM 0	San Juan	State Government
Ibrahim abuusha abdelfattah	2-910046	Amended	Venezuela S/S	65 INFANTRY/PONCE DE LEON #1203	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861690	Closure	SEARS ROEBUCK	RD. #176 CUPEY	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861778	Amended	CUPEY GARDENS S/S #393	APOLO AVE. MERCURIO ST.	San Juan	Gas Station
SOL PUERTO LIMITED	2-860951	Amended	SHELL S/S #002542	CECILIANA AVE. CORNER #1 ST.	San Juan	Gas Station
MONTE DE ORO ASSOCIATES	2-940041	Closure	MONTE DE ORO ASSOCIATES	SAN CLAUDIO ST. RD 845 KM 4 Sagrado Corazon	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860164	Amended	GULF S/S #143	#11 ST. URB. VILLAS DE PARANA	San Juan	Residential
LOIZA CLEANERS INC	2-940110	New	LOIZA CLEANERS INC.	RD. 845 KM 0.2 Cupey Alto	San Juan	Gas Station
BETTEROADS ASPHALT COPR.	2-861973	Closure	BETTEROADS ASPHALT CORP.	MAXIMO ALOWAR ST. #1185	San Juan	Other
ESSO STANDARD OIL CO PR	2-930088	Amended	ESSO S/S 2P-187	PR-845 KM. 1.6 (PLANT 1)	San Juan	Not Listed
Genoveva Morales Santos	2-980063	Amended	Top Auto	Ave. Lomas Verdes Plaza Olmedo	San Juan	Gas Station
DEPARTAMENTO DE EDUCACION	2-940248	Amended	ESC.MARIANA MARTINEZ DE PEREZ	Ave. 65 Infanteria Km. 3.6	San Juan	Other
Caribbean Petroleum Corporation	2-860249	Closure	GULF 394 (#016)	JUPITER ST., CORNER VENUS	San Juan	State Government
Total Petroleum Puerto Rico Corp.	2-860226	Closure	Total #2143	65TH INF MARGINAL	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860215	Amended	GULF S/S #197	CARR. 176 ESQ. SAN JAVIER	San Juan	Gas Station
DEPARTAMENTO DE EDUCACION	2-940245	Closure	ESC.CARMEN SANABRIA	AVE. SAN IGNACIO ESQ. SAN ALFONSO Urb	San Juan	Gas Station
UNIVERSIDAD METROPOLITANA	2-861962	Closure	UNIVERSIDAD METROPOLITANA	ARKANSAS ST., CORNER ALABAMA	San Juan	State Government
Reynaldo Espino	2-861774	Amended	Reynaldo Espino	ROAD 176	San Juan	Not Listed
AQuality Rental & Investment Corp	2-860165	Amended	Quality Rental (Ex GULF S/S #144)	RD. #844, KM. 4.3	San Juan	Gas Station
Western Auto Supply Co.	2-960065	Closure	Western Auto Store	BARBOSA & QUISQUEYA AVES.	San Juan	Gas Station
CIA PETROLERA CARIBE INC	2-860729	Closure	CARIBE STATION	Los Jardines Shopping Center	San Juan	Commercial
DEPARTAMENTO DE EDUCACION	2-940242	Closure	ESC.GASPAR VILLA MAYVANS	GAVIOTA ST. CORNER TURPIAL	San Juan	Gas Station
DEPARTAMENTO DE EDUCACION	2-940243	Closure	ESC. VILLA CAPRI	GENERAL VALERO ST.	San Juan	Other
BLUE FOUNTAIN INC. (LA	2-940057	Amended	Blue Fountain Inc	VERONA ST., CORNER NIZA	San Juan	Other
AUTORIDAD DE CARRETERAS	2-861141	Amended	ESSO S/S CO-203	PEREIRA LEAL ST. #589	San Juan	Commercial
DEPARTAMENTO DE EDUCACION	2-940238	Closure	ESC.RAFael HERNANDEZ VALVERDE	Carr. 1 Int. Carr. 176	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861751	Amended	Texaco VILLA GRANADA S/S #228	RESIDENCIAL SAN JOSE	San Juan	State Government
Zakaria Yaoub	2-910154	Amended	Nur Gas Station	DE DIEGO AVE. & PR 181	San Juan	Gas Station
Andres Rivera Aviles	2-861252	Amended	Sabana Llana S/S	SICILIA ST.	San Juan	Gas Station
Southwest health corporation	2-990014	Amended	HOSPITAL UNIVERSITARIO DE	Ave. De Diego #475	San Juan	Gas Station
P. R. MEDICAL SERV. ADM.	2-980105	Closure	ASEM-Medical Center-Cochina Central	CALLE PERIFERAL CENTRO MEDICO DE PUERTO	San Juan	Other
ESSO STANDARD OIL CO PR	2-861270	Closure	ESSO S/S 3P-198	Bo. Monacillos	San Juan	Other
San Juan Trading Co Inc.	2-980015	Closure	San Juan Trading Co.	BARBOSA AVE. CORNER DE DIEGO	San Juan	Gas Station
Jose Baez- Dango Corp.	2-860884	Amended	Dango Corp SUPER GAS STATION	Calle B Esq. C	San Juan	Commercial
EDWIN V. GOSS	2-861666	Amended	EDWIN V. GOSS INC.	RIAZA ST.	San Juan	Gas Station
SOL PUERTO LIMITED	2-860779	Closure	ONE OUR CLEANERS	CALLE SAN IGNACIO	San Juan	Truck/Transporter
SOL PUERTO LIMITED	2-860804	Closure	AMERICAN FENCE	CENTRAL AVE. #1272	San Juan	Not Listed
TECNICENTROS MUNDIAL	2-960026	Closure	TECNICENTRO MUNDIAL	RD. 21 KM. 4.7	San Juan	Commercial
CIA PETROLERA CARIBE INC	2-861549	Amended	Estacion Servicio Canbe	AVE CENTRAL 1643	San Juan	Commercial
SOL PUERTO LIMITED	2-860814	Closure	LABORATORIO SEIN MENDEZ	20 ST. SO NO. 1411	San Juan	Gas Station
SOL PUERTO LIMITED	2-860713	Amended	SHELL S/S #804711	DE DIEGO ST. #124	San Juan	Not Listed
				RD 176, KM. 1.1	San Juan	Gas Station

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
Hospital de Veteranos	2-030004	Amended	Hospital de Veteranos	Calle Casia #10	San Juan	Federal Non-Military
UNIVERSIDAD DE PUERTO RICO	2-890173	Closure	U.P.R	CAMPUS, BOX AR-UPR STATION	San Juan	Other
Caribbean Petroleum Corporation	2-860243	Amended	GULF #007	RD. #21 DE DIEGO AVENUE Reparto Metropolitan	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861762	Amended	ALTAMEESA S/S #218	SAN ALFONSO AVE. #1321	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861078	Amended	ESSO S/S CO-007	DE DIEGO AVE #964 INT. 48 ST. La Riviera	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861080	Amended	ESSO S/S CO-016	AMERICANO MIRANDA AVE. & 42 ST. Reparto	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861138	Amended	ESSO S/S CO-042	GLASGOW AVE. CORNER GRENOBLE	San Juan	Gas Station
REFRIGERAMA, INC.	2-890188	Closure	REFRIGERAMA INC.	PR-888, ESQUINA CALLE CEMENTERIO OESTE	San Juan	Industrial
SOL PUERTO LIMITED	2-860869	Amended	SHELL S/S # 003255	CAMPO RICO AVE. Country Club	San Juan	Gas Station
Autoridad de Energia Electrica	2-860009	Amended	Antigua COCA COLA	Ave. De Diego Final	San Juan	Utilities
DEPARTAMENTO DE SALUD	2-960068	Closure	Departamento de salud	Edificio Oficina Central	San Juan	State Government
TEXACO PUERTO RICO INC.	2-861744	Amended	EL COMANDANTE S/S # 358	CAMPO RICO AVE. CORNER COMANDANTE	San Juan	Gas Station
Victor Torres Perez	2-910161	Amended	VICTORY SERVICE STATION	SIMON MADERA AVE. #7	San Juan	Gas Station
SOL PUERTO LIMITED	2-910155	Closure	SHELL SERVICE STATION #003883	65 INFANTRY AVE.	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861745	Amended	VILLA PRADES S/S #335	PRINCIPAL AVE. Esq. Ave. Monte Carlo	San Juan	Gas Station
Efrain Tirado	2-861746	Amended	CAMPO RICO S/S #328	Ave. Simón Madera	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860268	Amended	GULF S/S #041	CAMPO RICO AVE. #800	San Juan	Gas Station
CARIBE GENERAL ELECTRIC PROD	2-861959	Amended	CARIBE GENERAL ELECTRIC PROD	AVE. DE DIEGO #613 esq Juan Pena Bo. Sabana	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861674	Closure	LORD ELECTRIC OF P.R.	LA BRISA ST. #5	San Juan	Not Listed
PUERTO RICO TELEPHONE CO	2-880088	Closure	Escuela de telecomunicacion	VILLA PRADES IND. PARK	San Juan	Utilities
DEPARTAMENTO DE EDUCACION	2-940241	Closure	ESC. ANTONIO SARRIERA EGOZGUE	ALEGRIA ST. (END)	San Juan	State Government
DEPARTAMENTO DE EDUCACION	2-940224	Closure	ESC. JOSE GUALBERTO PADILLA	CARMEN HERNANDEZ	San Juan	State Government
Ibrahim abusha abdel fatah	2-860938	Amended	Abu-USA Petroleum	NEBLIN ST. #500	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860863	Amended	Gulf S/S #905	DE DIEGO AVE. 1155	San Juan	Gas Station
ANDRES ALAGA TAMAYO	2-000030	Closure	AMERICAN TRANSMISSION, INC.	LUIS MUÑIZ SUFFRONT AVE. Los Maestros	San Juan	Commercial
MUNICIPIO DE SAN JUAN / DPTO.	2-940292	Closure	CDT. DR. ENRIQUE KOPPISH	CALLE SICLIA ESQ. AVE. BARBOSA#404	San Juan	Local Government
TREN URBANO	2-980137	Closure	Casa Blanca Motors	Carr #1 km 1113 hm 4 El Cinco	San Juan	State Government
Departamento de Correccion y	2-920049	Closure	PENITENCIARIA ESTATAL	PENITENCIARIA ESTATAL	San Juan	Utilities
SOL PUERTO LIMITED	2-910157	Amended	SHELL S/S #804754	65 INFANTRY AVE.	San Juan	Gas Station
Hogar Carmelitano	2-970051	Closure	Hogar Carmelitano	Calle Julian Bengochea	San Juan	Other
SOL PUERTO LIMITED	2-860936	Amended	SHELL S/S #000515	SIMON MADERA AVE., CORNER ANDINO Villa	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861743	Amended	ITURREGUI S/S #371	ITURREGUI AVE. CORNER 413 ST.	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860241	Amended	GULF S/S #005	65TH INF. & CAMPO RICO AVES km 5.1 Bo Sabana	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861767	Amended	Miguel Matos S/S #265	RD. #842, KM. 2.8	San Juan	Gas Station
TEXACO PUERTO RICO INC.	2-861753	Amended	COUNTRY CLUB S/S #221	RUISEÑOR ST. #979	San Juan	Gas Station
SOL PUERTO LIMITED	2-860628	Closure	SHELL SERVICE STATION #804967	NAPOLLES ST. CORNER 65 INFANTRY	San Juan	Gas Station
Juan Luis Escudero	2-860228	Amended	EI Tunnel S/S # 4073	65TH INFANTRY AVE. KM 1.9	San Juan	Gas Station
US POSTAL SERVY-65TH INF.	2-860426	Closure	US POSTAL SERVY-65TH INF. STATION	65TH INFANTRY AVE	San Juan	Not Listed
Southwest health corporation	2-900079	Closure	Hospital Pediatrico Universitario	Calle Periferal-Centro Medico de Rio Piedras	San Juan	Other
PUERTO RICO TELEPHONE CO	2-920034	Closure	REMOJO TELEFONICO XI GUAYNABO	L. ROMANACH ST. #315	San Juan	Utilities
TEXACO PUERTO RICO INC.	2-861747	Closure	SUCN. GUSTAVO LUGO S/S	65 INFANTRY AVE. KM. 1.2	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860119	Closure	FRFRER ART STUDIO	CARR. 846 KM. 0.6	San Juan	Commercial
US POSTAL SERVICE-GPO	2-860424	Amended	US POSTAL SERVICE-VMF FACILITY	585 F.D. ROOSEVELT AVE.	San Juan	Federal Non-Military

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
Caribbean Petroleum Corporation	2-860161	Amended	GULF #140	65TH INF. KM. 5.2 San Martin	San Juan	Gas Station
BANCO POPULAR DE P.R.	2-860451	Amended	BANCO POPULAR DE P.R.	CARR 167 KM. 1.4	San Juan	Other
NAVERAS DE PUERTO RICO	2-940157	Closure	NAVERAS DE PUERTO RICO	MERCADO CENTRAL ST.	San Juan	Truck/Transporter
RIMCO INC	2-860589	Closure	RIMCO INC	KM 3.7 KENNEDY AVE	San Juan	Industrial
Hospital Isaac Gonzalez Martinez	2-020041	Closure	Hospital Isaac Gonzalez	Centro Medico	San Juan	Other
Army and Air Force Exchange	2-070006	New	AAFES, Shoppette, Fuente Buchanan	Edif. 556, Calle Brook # 218	San Juan	Federal Military
FONDO DEL SEGURO DEL ESTADO	2-900092	Amended	HOSPITAL INDUSTRIAL	MEDICAL CENTER	San Juan	Other
Caribbean Petroleum Corporation	2-860126	Closure	PEPSI COLA BOTTLING CO.-5423000	CALLE SIMON MADERA #28	San Juan	Gas Station
RECINTO DE CIENCIAS	2-900095	Closure	U.P.R. RECINTO CIENCIAS MEDICAS	MEDICAL CENTER	San Juan	Other
Funeraria Ehret	2-980140	Closure	Funeraria Ehret	Calle Briena #4	San Juan	Commercial
AUTORIDAD DE EDIFICIOS	2-910011	Amended	CENTRO CARDIOVASCULAR DE P.R.	AMERICO MIRANDA AVE.	San Juan	State Government
UNIVERSIDAD DE PUERTO RICO	2-910312	New	DIVISION DE TALLERES	AVE. BARBOSA	San Juan	State Government
ADM. COLG. REGIONALES, U.P.R	2-861902	Closure	ADM. COLG. REGIONALES, U.P.R	#17 ST. CORNER #6	San Juan	Industrial
TREN URBANO	2-020016	Closure	ESTACION DE DIEGO	EXPRESO DE DIEGO INT. CARR. 21	San Juan	State Government
Federal Packing of Puerto Rico	2-980079	Closure	ESTACION DE DIEGO	Enrique Vazquez #4	San Juan	Industrial
MUNICIPIO DE SAN JUAN / DPTO.	2-880109	Closure	HOSPITAL MUNICIPAL SAN JUAN	CENTRO MEDICO	San Juan	Other
AUTORIDAD DE LOS PUERTOS	2-860076	Closure	ESTACION GASOLINA A.S.G.	MAJAGUA ST BUILDING 16	San Juan	State Government
MUNICIPIO DE SAN JUAN / DPTO.	2-940291	Amended	CDT DR. JOSE S. BELAVAL	AVE BORINOQUEN ESQ. NIN BO. OBRERO	San Juan	Local Government
MUNICIPIO DE SAN JUAN / DPTO.	2-940288	Closure	CDT. DR. ARNALDO J GARCIA	CALLE FLOR ANTILLANA	San Juan	Local Government
TEXACO PUERTO RICO INC	2-861510	Closure	Texaco-- Otto Palacios S/S # 945	RD. 1 KM 19.1	San Juan	Gas Station
Gobierno de Puerto Rico,	2-000034	New	Departamento de la Vivienda	Ave. José Celso Barbosa #606	San Juan	State Government
RELIABLE FINANCIAL SERVICES	2-990051	New	RELIABLE FINANCIAL SERVICES	AVE. MUÑOZ RIVERA #101	San Juan	Commercial
Caribbean Petroleum Corporation	2-860265	Amended	GULF S/S #037	PARANA ST..ESQ. WESSRER Rio Piedras Heights	San Juan	Gas Station
MUNICIPIO DE SAN JUAN / DPTO.	2-940294	Closure	OFICINAS EJECUTIVAS	AVE. DE DIEGO FINAL AL LADO DE LA AMA	San Juan	Local Government
US DEPARTMENT OF ENERGY	2-940014	Closure	PUERTO RICO NUCLEAR CENTER	MEDICAL CENTER	San Juan	Federal Non-Military
Caribbean Petroleum Corporation	2-930031	Amended	Gulf # 415	Aeropuerto Luis Muñoz Marín Airport Cargo Area	San Juan	Gas Station
FEDERAL AVIATION	2-860102	Closure	FAA SAN JUAN	INTERNATIONAL AIRPORT	San Juan	Federal Non-Military
FEDERAL AVIATION	2-860107	Closure	FAA SAN JUAN, RTR	INTERNATIONAL AIRPORT	San Juan	Federal Non-Military
FEDERAL AVIATION	2-860108	Closure	FAA SAN JUAN VORTACR	INTERNATIONAL AIRPORT	San Juan	Federal Non-Military
American Airlines Inc.	2-980055	Closure	American Airlines Auto Shop	Base Aerea Muñiz	San Juan	Other
Caribbean Petroleum Corporation	2-860151	Closure	INT. AIR SERVICE-54199901	LUIS MUÑOZ MARIN INTL. AIRPORT	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860255	Amended	GULF #024	MUNOZ RIVERA AV. #1007	San Juan	Gas Station
Alberto Contreras	2-861765	Amended	Rock S/S	RD. 1, KM. 20.3	San Juan	Gas Station
URBANO TORRES INC.	2-910318	Amended	URBANO TORRES INC.CARR.NO#1	TORTUGO	San Juan	Gas Station
Guillermo A. Passalacqua	2-980128	Closure	Charmco S/S	Ponce de León esq. calle Cayey	San Juan	Gas Station
Rattan Specialties Inc.	2-990017	Amended	Rattan Specialties Inc.	Carr. #1 Salida Rio Piedras	San Juan	Gas Station
Defensa Civil-San Juan	2-990020	Closure	Defensa Civil	Calle A #178	San Juan	Local Government
PUBLIC HOUSING ADMINISTRATION	2-960013	Closure	CRISANTEMOS II	CALLE 28 ESQ. CALLE CECILIA SAN	San Juan	State Government
TEXACO PUERTO RICO INC	2-861661	Closure	CERVECERIA CORONA	STOP 20	San Juan	Industrial
Puerto Rico & Inc.	2-980010	New	Seven Eleven Inc.	Ave. Fernandez Juncoos 1462	San Juan	Gas Station
SOL PUERTO LIMITED	2-860792	Closure	POLICIA DE PUERTO RICO	ANTIGUO ANGAR DEL HELICOPTERO	San Juan	Not Listed
ESSO STANDARD OIL CO PR	2-920107	Closure	Autoridad Metropolitana de Autobuses	AVE. de Diego # 37	San Juan	State Government
SOL PUERTO LIMITED	2-860826	Closure	EMERITO ESTRADA-IZUZU DE P.R.	KENNEDY AVE.	San Juan	Industrial
MUNICIPIO DE SAN JUAN	2-880107	Amended	OBRAS PUBLICAS MUNICIPAL	KENNEDY AVE., KM. 1.7	San Juan	Local Government

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
Autoridad de Acueductos y	2-861491	Closure	CENTRO SERVICIOS - SAN JUAN	STOP 26 1/2	San Juan	Utilities
AUTORIDAD DE LOS PUERTOS	2-860092	Closure	Aeropuerto F Rivas-Isla Grande	GPO BOX 2829	San Juan	Utilities
SOL PUERTO LIMITED	2-860705	Amended	SHELL S/S 804975	PONCE DE LEON, Parada 27	San Juan	Gas Station
FUNDACION EDUCATIVE ANA G	2-990056	Closure	Universidad Metropolitana Canal 40	Carr. 176 Km. 0.5	San Juan	Other
Autoridad de Energia Electrica	2-860761	Closure	PLANTA TERMOELECTRICA	ZONA PORTUARIA	San Juan	State Government
MUNICIPIO DE SAN JUAN	2-980056	Closure	Municipio de San Juan	Calle Duarte Final Este	San Juan	Local Government
ESSO STANDARD OIL CO PR	2-910317	Closure	Esso / San Juan Star	Ave. Kennedy	San Juan	Industrial
NUTRI CARIBE, INC. (CHOCOLATE	2-960056	Amended	Nutri Caribe, Inc.	Calle Manuel Camuñas #4	San Juan	Commercial
Ystem Corporation	2-960050	Closure	Almacenes La Riviera	Ave. 65 de Infanteria Km. 3.1 Sabana Llana Antiguo	San Juan	Auto Dealership
Autoridad de Energia Electrica	2-970049	Closure	Artiguo Jet Covadonga	Paseo Covadonga	San Juan	Other
PUBLIC HOUSING ADMINISTRATION	2-960012	Closure	CRISANTEMOS I	CALLE C RAMOS ANTONINI	San Juan	State Government
SOL PUERTO LIMITED	2-860793	Closure	MUEBLERIAS MENDOZA	RD #1	San Juan	Not Listed
HORMIGONERA CARIBE	2-860063	New	HORMIGONERA CARIBE	RD 845 KM 1.5	San Juan	Contractor
O & Y Enterprises	2-980074	Closure	Edificio Plaza Scotiabank	Ave. Ponce de León # 273	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861752	Amended	UNIVERSITY GARDENS S/S #226	SALAMANCA ST #215 CORNER HARVARD	San Juan	Commercial
ESSO STANDARD OIL CO PR	2-861124	Amended	ESSO S/S CO-014	MUÑOZ RIVERA AVE. #1004	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861269	Closure	ESSO S/S 77037	SAN FRANCISCO SHOPPING CENTER	San Juan	Gas Station
GOMEZ HERMANOS, INC	2-940197	Closure	Toyota de PR (Ex GOMEZ HERMANOS	MUÑOZ RIVERA AVE. #1064	San Juan	Auto Dealership
ESSO STANDARD OIL CO PR	2-910344	Closure	SEARS ROEBUCK DE P.R.	RD #176 KM 0.8, CUPEY	San Juan	Commercial
PUERTO RICO TELEPHONE CO	2-000026	Amended	Renodo Montehiedra	Ave. Los Romanos	San Juan	Utilities
Knart Corporation	2-970009	Closure	Knart Store #9789	Ave. Winston Churchill	San Juan	Commercial
Luis R. Rodriguez Rodriguez	2-860724	Amended	L.R. Gas Station	STATE ROAD #176 KM 7.2	San Juan	Gas Station
First Real Estate S.E.	2-940252	Closure	Suarez Toy House	Road 845 Internal Ind. Development Victor Suarez	San Juan	Commercial
ESSO STANDARD OIL CO PR	2-861435	Closure	RIO CONSTRUCTION CORP.	RD. 1, KM. 18.5	San Juan	Industrial
ALBANO ONE HOUR MARTINIZING	2-940112	New	ALBANO ONE HOUR MARTINIZING	RD. CUPEY CORNER RHIN	San Juan	Commercial
AUTORIDAD DE CARRETERAS	2-050004	Amended	Facilidades Tren Urbano Cupey	Carr 1 y Carr 21	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861139	Amended	ESSO S/S CO-185	RD. 1 KM. 13.4 Urb Antonsanti	San Juan	Gas Station
PRODUCTOS DE CARRETERA	2-860010	Closure	PRODUCTOS DE CARRETERA	FILIPPO DI PLANA RD 20 KM 20	San Juan	Contractor
WELLS FARGO ARMORED SERV.	2-860038	Closure	WELLS FARGO ARMORED SERV.	10 GANGES ST	San Juan	Truck/Transporter
Caribbean Petroleum Corporation	2-860038	Amended	Gulf #330 (Plaza Interamericana)	CARR. 838 KM. 4 HM. 4	San Juan	Gas Station
SOL PUERTO LIMITED	2-860802	Closure	Vico Chemical-Shell Site	RD. #1 KM. 19.9	San Juan	Industrial
Hospital San Gerardo	2-980073	Closure	Hospital San Gerardo	Carr. 844 km. 0.5 Cupey Bajo	San Juan	Other
Total Petroleum Puerto Rico Corp.	2-910383	Amended	Total Petroleum #3304	RD 176 KM 8.1	San Juan	Gas Station
José Sanchez	2-860721	Amended	CITGO CAIMITO	ROAD 842 KM 4 HM 1	San Juan	Gas Station
Autoridad de Acueductos y	2-861490	Closure	OPERACION SECTION	EXPERIMENTAL STATION	San Juan	Utilities
VA MEDICAL & REG. OFFICE	2-861524	Amended	VA CARIBBEAN HEALTHCARE	RD #21 10 CASIA ST	San Juan	Federal Non-Military
TEXACO PUERTO RICO INC	2-861772	Amended	EL CEREZAL S/S #331	PONCE DE LEON AVE.	San Juan	Gas Station
WOMETCO DE PUERTO RICO	2-950061	Closure	BASKIN ROBBINS	EL SEÑORIAL MALL	San Juan	Commercial
ESSO STANDARD OIL CO PR	2-861253	Amended	ESSO S/S 3P-227	RD. 846 KM. 1.1, Centro Comercial Ciudad	San Juan	Gas Station
SEARS, ROEBUCK AND CO.	2-861900	Amended	SEARS, ROEBUCK AND CO.	ROAD #176 KM 0.5	San Juan	Commercial
ARMOR ENTERPRISES	2-940082	New	Armor Enterprises-Laundry	PARANA ST. #31, EL PARAISO Rio Piedras	San Juan	Other
Eagle Gas Corp.	2-860692	Amended	EAGLE GAS CORPORATION	RD. 842 KM 1.9	San Juan	Gas Station
COLEGIO SAN IGNACIO DE	2-860719	Closure	COLEGIO SAN IGNACIO DE LOYOLA	SABRECO (END) ST.	San Juan	Not Listed
P.R. MEDICAL SERV. ADM.	2-861945	Closure	STEAM POWER PLANT	MEDICAL CENTER	San Juan	Other

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
PUERTO RICO TELEPHONE CO	2-920035	Closure	REMOTO TELEFONICO VII GUAYNABO	RD #1 KM 19.10 (INTERIOR)	San Juan	Utilities
Autoridad de Energia Electrica	2-920103	Closure	TALLER DE MECANICA AUTOMOTRIZ	SAN ROBERTO ST., MONACILLOS WARD	San Juan	Utilities
ESTACION EXPERIMENTAL	2-861991	Closure	TECNOLOGIA DE ALIMENTOS	RD #1 KM 12.9	San Juan	State Government
EL COQUI RESORT INC.	2-940102	Closure	HOTEL LA FUENTE	RD #842 KM. 7.0	San Juan	Commercial
CAPITOL ENGINEERING	2-940124	New	CAPITOL ENGINEERING	RD. #176 KM. 5.8	San Juan	Contractor
ESTACION EXPERIMENTAL	2-861993	Closure	PLANTA PILOTO DE RON	RD #1 KM 12.9	San Juan	Utilities
AUTORIDAD DE CARRETERAS	2-960008	Closure	AUTORIDAD DE CARRETERAS	RD.1 KM. 18.5	San Juan	State Government
DEPARTAMENTO DE EDUCACION	2-940246	Closure	ESC. INES MARIA MENDOZA	RD 842 KM 2 HM 6	San Juan	State Government
SOL PUERTO LIMITED	2-861026	Amended	SHELL S/S #000507	CARMEN HERNANDEZ CORNER LUCIANO Urb E	San Juan	Gas Station
Autoridad de Energia Electrica	2-920081	Closure	CENTRO DE TRANSMISION DE	RD #1, MONACILLOS WARD	San Juan	Utilities
Total Petroleum Puerto Rico Corp.	2-930081	Closure	ISLA PETROLEUM CORP.	RD. #19, KM 1.2	San Juan	Gas Station
Departamento de Correccion y	2-940128	New	PRESIDIO ESTATAL DE P.R.	RD. #21	San Juan	State Government
TREBOL MOTORS	2-880088	Closure	TREBOL MOTORS	KENNEDY AVE. CORNER ORQUIDEA ST.	San Juan	Auto Dealership
J.A.B. CLEANERS INC.	2-940093	Closure	J.A.B. CLEANERS INC.	SAN FRANCISCO SHOPPING CENTER	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861763	Amended	SANTA MARIA S/S #225	RD. #1, KM. 16.6	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861759	Amended	Texaco Villa Nevarez S/S #208	#2 ST. CORNER #21 ST.	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860197	Amended	GULF S/S #179	Ave. Americo Miranda, Esq. Gutenberg Jardines	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861130	Closure	ESSO S/S COB-025	MUÑOZ RIVERA AVE.	San Juan	Gas Station
CAFE VALENCIA	2-990028	Closure	CAFE VALENCIA	AVE MUÑOZ RIVERA INT. AVE LOS MIRITOS	San Juan	Commercial
DEPARTAMENTO DE EDUCACION	2-960037	Closure	ESUELA SOTERO FIGUEROA	PALMA REAL AVE., CORNER FORDHAM	San Juan	State Government
ANTILLES MOTORS REBUILDERS	2-920040	Closure	ANTILLES MOTORS REBUILDERS	DE DIEGO AVE. #480	San Juan	Commercial
COOPERATIVA DE SEGURO	2-880062	Closure	COOPERATIVA DE SEGURO	NEVAREZ ST & AMERICO MIRANDA AVE	San Juan	Not Listed
COOP. DE SEGUROS DE VIDA DE	2-861941	Closure	COOP. DE SEGUROS DE VIDA DE P.R.	AMERICO MIRANDA AVE. #400	San Juan	Commercial
VA MEDICAL & REG. OFFICE	2-890196	New	120 BED NURSING HOME & BLIND	AB ONE VETERANS PLAZA	San Juan	Not Listed
ESSO STANDARD OIL CO PR	2-861438	Closure	UNIVERSIDAD INTERAMERICANA	GALLIEO ST. END	San Juan	Industrial
International Institute of Tropical	2-010026	Closure	Jardin Botanico UPR- Rio Piedras	Los Terreno de la estacion experimental UPR	San Juan	State Government
Autoridad de Energia Electrica	2-860744	Closure	CENTRO DE DISTRIBUCION	SAN ROBERTO ST.	San Juan	Utilities
DEPARTAMENTO DE SALUD	2-990058	Amended	HOSPITAL SIQUIATRIA RAMON	CENTRO MEDICO	San Juan	State Government
AUT. METROPOLITANA	2-861948	Amended	Autoridad Metropolitana de Autobuses	#37. DE DIEGO AVE.	San Juan	State Government
Maria Cristina Goenaga	2-960067	Closure	Creditos e Inversiones San Miguel Inc.	Calle Prolongacion La paz	San Juan	Commercial
DEPARTAMENTO RECURSOS	2-970021	Closure	Casa de Bombas	Ave. Baldoñoy de Castro Km. 4.8	San Juan	Other
Condado Plaza Hotel	2-980118	Closure	Condado Plaza Hotel	Ave. Ashford 999	San Juan	Other
SOL PUERTO LIMITED	2-980132	Amended	CAMPARRA MOTORS- TARGET RENT A	CALLE PASANTE #207	San Juan	Other
Autoridad de Energia Electrica	2-860765	Closure	SANTURCE JET	LUCCHETTI ST.	San Juan	Not Listed
AUTORIDAD DE CARRETERAS	2-040011	Closure	Autoridad de carreteras	Avenida Ponce de Leon Esq. Ave. Borinquen	San Juan	Not Listed
APARTMENT INVESTMENT AND	2-960066	Closure	VISTAS DE SAN JUAN APARTMENTS	AVE. FERNANDEZ JUNCOS 600	San Juan	Residential
LOIZA CLEANERS INC.	2-861423	Amended	LOIZA CLEANERS	LOIZA ST. #63	San Juan	Industrial
ESSO STANDARD OIL CO PR	2-861436	Closure	CONDADO HOLIDAY INN	ASHFORD AVE. #977	San Juan	Industrial
Aut del Nuevo Distrito del Centro de	2-030007	Closure	Aut.Nuevo Distrito Centro Convenciones	Ave. Fernandez Juncos #610	San Juan	State Government
Autoridad de Energia Electrica	2-990012	Closure	Antigua Algodonera	Calle Condado Esq. Ave. Ponce de Leon	San Juan	Utilities
TEXACO PUERTO RICO INC	2-861638	Closure	RAMON L. RODRIGUEZ S/S #311	110 DE DIEGO AVE, Corner Loiza St. Santurce	San Juan	Gas Station
TREBOL MOTORS	2-880086	Closure	Trebol Motors	R.H. Todd Ave. Baldoñoy de Castro	San Juan	Auto Dealership
CARLOS ARBOLEDA	2-920085	Amended	AUTORIDAD DE LOS PUERTOS	MAINTENANCE SHOP	San Juan	State Government
CIA PETROLERA CARIBE INC	2-860727	Amended	Gasolinera CARIBE, INC.	R.H. TODD 1000	San Juan	Gas Station

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
Leonardo Torres	2-860288	Amended	Global Gasoline Inc	PONCE DE LEON 1521, Rio Piedras	San Juan	Gas Station
Taco gas Incl Jaime Prieto Silva	2-861555	Amended	Zulu Gas Station /Formel Marine	FERNANDEZ JUNCOS AVE. &	San Juan	Gas Station
DOCTORS HOSPITAL INC	2-900063	Amended	DOCTORS HOSPITAL INC	SAN RAFAEL ST.	San Juan	Other
HOSPITAL PAVIA INC.	2-920032	Closure	HOSPITAL PAVIA	ASIA ST. #1462	San Juan	Other
Total Petroleum Puerto Rico Corp.	2-910061	Amended	Total Petroleum #1003	Calle San Jose #704	San Juan	Gas Station
SUJCESION RUIZ GRAU	2-930009	Closure	PANADERIA RESTAURANTE LISBOA	PONCE DE LEON AVE. #1850	San Juan	Commercial
UNIVERSIDAD SAGRADO	2-861522	Closure	UNIVERSIDAD SAGRADO CORAZON	ROSALES ST. CORNER SAN ANTONIO	San Juan	Other
SOL PUERTO LIMITED	2-860967	Closure	SHELL S/S #000019	PONCE DE LEON #1910 Santurce	San Juan	Gas Station
RICARDO J. ROSELLO	2-860872	Amended	San Mateo Serviente	EDUARDO CONDE AVE.	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860960	Amended	GULF S/S#482	FERNANDEZ JUNCOS AVE. #816	San Juan	Gas Station
SOL PUERTO LIMITED	2-860956	Amended	SHELL S/S#000302	DE DIEGO AVE. CORNER WILSON	San Juan	Gas Station
SOL PUERTO LIMITED	2-860875	Amended	SHELL S/S #000329	FERNANDEZ JUNCOS AVE. Esq. Hipodromo	San Juan	Gas Station
Administracion Servicios Generales	2-860082	Amended	Area Transporte- Hato Rey	BARBOSA AVE. #155	San Juan	State Government
SOL PUERTO LIMITED	2-860782	Closure	STAR TAXI (ROBERTO LEFRANC)	DONCELLA ST. #101	San Juan	Not Listed
PUERTO RICO PUBLIC BUILDING	2-900090	Closure	AUTORIDAD DE EDIFICIOS PUBLICO	APARTADO 41209	San Juan	Other
ESSO STANDARD OIL CO PR	2-861134	Amended	ESSO S/S CO-035	Ave. Ponce de León Esq. Calle Madrid	San Juan	Gas Station
SAN JUAN GAS COMPANY	2-861134	New	SAN JUAN GAS COMPANY	EXPRESO MARGINAL SUR AVE.	San Juan	Commercial
SOL PUERTO LIMITED	2-860946	Amended	SHELL S/S 002291	140 APONTE STREET	San Juan	Gas Station
JIMENEZ & FERNANDEZ INC.	2-940160	Amended	CAFE YAUCONO	FERNANDEZ JUNCOS AVE STOP 16 1/2	San Juan	Industrial
TEXACO PUERTO RICO INC	2-861564	Amended	Texaco Miramar S/S #217	FERNANDEZ JUNCOS & ESTADO ST.	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861682	Amended	P.R. ASPHALT CO.	800 ROBERTO H. TODD AVE.	San Juan	Gas Station
ASHFORD PRESBYTERIAN	2-900061	Closure	ASHFORD PRESBYTERIAN	1451 ASHFORD AVENUE	San Juan	Other
Caribbean Petroleum Corporation	2-860178	Amended	Gulf S/S #159	Condado. Ave. Luchetti Marginal	San Juan	Gas Station
Santa Paula Oil	2-900031	Amended	SANTA PAULA OIL	PALMA ST. #1304	San Juan	Gas Station
ELSA DELGADO	2-910078	Amended	Con GAS	FERNANDEZ JUNCOS AVE. #1104	San Juan	Gas Station
MUNICIPIO DE SAN JUAN	2-940023	New	CENTRO PESQUERO DE SAN JUAN	SECTOR HOARE	San Juan	Local Government
ESSO STANDARD OIL CO PR	2-861126	Amended	ESSO S/S CO-018	Ave. Expreso Sur Pda. 14	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860237	Amended	GULF #4452	Ave. Baldorioty de Castro Norte Shopping Center	San Juan	Gas Station
AT & T	2-990024	Amended	AT & T	AVE. PNCE DE LEON #820	San Juan	Commercial
SOL PUERTO LIMITED	2-860877	Amended	SHELL S/S #000310	LABRA ST. PDA 18	San Juan	Gas Station
CONDADO HOTEL PARTNERSHIP	2-930079	Closure	CONDADO HOTEL-Marmot	1309 ASHFORD AVE.	San Juan	Other
FEDERAL AVIATION	2-860104	Closure	ISLA GRANDE ATCT	ISLA GRANDE AIRPORT	San Juan	Federal Non-Military
P R DRYDOCK & MARINE	2-861521	Closure	P R DRYDOCK & MARINE TERMINALS	MIRAFLORESVILLAVERGE ST PIER 15	San Juan	Industrial
World Com Inc.	2-860026	Amended	World Com	665 PONCE DE LEON AVE.	San Juan	Commercial
ESSO STANDARD OIL CO PR	2-860696	Amended	ESSO-Hertz Rent a Car Condado	ASHFORD AVE. #1365	San Juan	Commercial
BANCO POPULAR DE P.R.	2-940193	Closure	BANCO POPULAR DE P.R.	PONCE DE LEON AVE. #1155	San Juan	Other
ITT ALL AMERICA CABLES & RADIO	2-860022	Closure	ITT ALL AMERICA CABLES & RADIO	901 PONCE DE LEON AVE.	San Juan	Other
John Sugden	2-960064	Closure	La Fondia de Jesus	Calle Monserrate Sector Trastalleres	San Juan	Utilities
ESSO STANDARD OIL CO PR	2-930077	Closure	L & M CAR RENTAL	1051 ASHFORD AVE.	San Juan	Not Listed
DEPARTAMENTO RECURSOS	2-862002	New	ESTACION DE BOMBAS DE DIEGO	DE DIEGO AVE & ESTRELLA ST	San Juan	Commercial
Caribbean Petroleum Corporation	2-860274	Amended	GULF S/S #050	Mcleary ST. #1908	San Juan	Not Listed
TEXACO PUERTO RICO INC	2-861583	Amended	Texaco- Stop 18 S/S #210	FERNANDEZ JUNCOS AVE. #1256	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861128	Closure	ESSO S/S CO-020	Ave. Ponce de León Esq. Boitruquen # 1901	San Juan	Gas Station
OCHOA FERTILIZER CO.,INC	2-860413	Closure	OCHOA FERTILIZER CO.,INC	PROLONGACION PAZ ST. #744	San Juan	Industrial

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
ESSO STANDARD OIL CO PR	2-861132	Amended	ESSO S/S CO-030	Calle Labra Esq. Ave. R. H. Todd	San Juan	Gas Station
U.S. Naval Station	2-000016	Closure	NAVAL RESERVATION BLDGS. 445 & STOP 7 1/2		San Juan	Federal Military
Caribbean Petroleum Corporation	2-860325	Closure	GULF SERVICE STATION #0403	FRANCIA ST. #503, Hato Rey	San Juan	Gas Station
SOL PUERTO LIMITED	2-860693	Amended	SHELL S/S #804819	LAS PALMAS, CORNER CERRA ST 956 Santurce	San Juan	Gas Station
POLICIA DE PUERTO RICO	2-000019	Closure	PRECINTO 182-HATO REY ESTE	Calle Sicilia final (Calle 13) Esq. Calle Dr. Lopez	San Juan	State Government
CIA PETROLERA CARIBE INC	2-861551	Amended	CARPENTER ROAD S/S	BARBOSA AVE. 1203	San Juan	Gas Station
Pedro Rodriguez Oroscio	2-860723	Amended	Quisqueya S/S	QUISQUEYA ST. #55	San Juan	Gas Station
RENOVADORA INC.	2-970004	Closure	RENOVADORA INC.	RIO PIEDRAS COMMERCIAL	San Juan	Other
GARAGE ARCO, INC	2-900026	Amended	GARAGE ARCO, INC	BARBOSA AVE. #64	San Juan	Gas Station
BMA SAN JUAN	2-960043	New	BMA SAN JUAN	205 DUARTE ST. 3 RD FLOOR	San Juan	Other
MODAS JOSEPHINE INC	2-862012	New	MODAS JOSEPHINE INC	CAROLINA ST. #513	San Juan	Not Listed
MOTORAMBAR-SERVICIOS	2-940001	Closure	FUNDACION SIERRA BOERMAN	PONCE DE LEON 701	San Juan	Aircraft Owner
Caribbean Petroleum Corporation	2-920008	Amended	GULF S/S #301	BARBOSA AVE. #620 al lado Supermercado Conchita	San Juan	Gas Station
Mahmoud Ali Shehadeh	2-861131	Amended	Barbosa S/S (Ex ESSO S/S CO-027)	BARBOSA AVE. 612	San Juan	Gas Station
Triple-S Inc.	2-990019	Closure	Triple-S	Avenida Matadero	San Juan	Commercial
Victor Fernandez	2-910143	Amended	Aramco Gas Station	BARBOSA AVE. #710	San Juan	Gas Station
Plaza Las Americas Inc.	2-980048	Closure	Plaza Las Americas Inc.	Carr. 18 Esq. Ave. Fernandez Roosevelt	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861756	Amended	QUINTANA S/S #202	GUAYAMA & FRANCIA STREETS	San Juan	Gas Station
SOL PUERTO LIMITED	2-860874	Closure	SHELL SERVICE STATION #001465	BARBOSA AVE. CORNER DUARTE	San Juan	Gas Station
ANGEL LUIS COLON	2-860378	Amended	Total 2169 (exSHELL S/S #004031)	Ave. Barbosa	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861267	Amended	ESSO S/67	Ave. Barbosa #448 Esq. Guayama	San Juan	Gas Station
AUTORIDAD DE EDIFICIOS	2-930046	Closure	EDIFICIO JUAN C. CORDERO DAVILA	BARBOSA AVE. #606	San Juan	Local Government
BAMI DE PUERTO RICO	2-900062	Closure	HATO REY COMMUNITY HOSPITAL	PONCE DE LEON AVE. # 435	San Juan	Other
ESSO STANDARD OIL CO PR	2-861136	Closure	ESSO SERVICE STATION	CHILE ST. URB. PIREIRO	San Juan	Gas Station
PUERTO RICO TELEPHONE CO	2-880090	Amended	HATO REY C.O.	PONCE DE LEON AVE. #562, PDA.35	San Juan	Utilities
Alfredo de Amas	2-950023	Closure	COMPRESORES & EQUIPO	GUAYAMA ST. #267	San Juan	Commercial
SOL PUERTO LIMITED	2-860942	Closure	SHELL SERVICE STATION #001180	PONCE DE LEON AVE.	San Juan	Gas Station
Valines Industrial Laundry	2-920121	New	Valines Industrial Laundry	2260 Ave. Rexach Barrio Obrero Santurce	San Juan	Commercial
PRINCIPADO MODERN DRY	2-940079	Closure	PRINCIPADO MODERN DRY	BARBOSA AVE. #604	San Juan	Commercial
Eduardo O. Viera Zayas	2-861546	Amended	Eduardo Viera S/S	RD #12, #517, BORINQUEN AVE.	San Juan	Gas Station
MUNICIPIO DE SAN JUAN	2-990057	Closure	ESTACION DE BOMBAS REXACH	BARRIO OBRERO	San Juan	Local Government
TEXACO PUERTO RICO INC	2-861581	Amended	Texaco- Pifero Development S/S #353	ROOSEVELT AVE. EXT. TRINIDAD	San Juan	Gas Station
Best Western Hotel Pierre	2-990071	Closure	Best Western Hotel Pierre	Ave. De Diego #105	San Juan	Commercial
Caribbean Petroleum Corporation	2-900035	Amended	GULF S/S #399	LOIZA ST. ESOLLOS BAÑOS	San Juan	Gas Station
SOL PUERTO LIMITED	2-860656	Amended	SHELL S/S #804738	LOIZA ST. CORNER KINGS COURT	San Juan	Gas Station
SOL PUERTO LIMITED	2-860949	Closure	SHELL SERVICE STATION #000337	LOIZA ST. CORNER SANTA CECILIA	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861140	Amended	ESSO S/S CO-186	Calle Loiza Esq. Tapia	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861142	Amended	ESSO S/S CO-205	Calle Loiza # 2207	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860406	Amended	GULF S/S #458	BALDORIOTY & DEGETAU STS SANTURCE	San Juan	Gas Station
SOL PUERTO LIMITED	2-860941	Amended	SHELL S/S #000680	LOIZA ST CORNER CAOPOS Punta Las Marias	San Juan	Gas Station
Luis Gárate	2-020012	Amended	La Nueva Puerta de Santurce, Inc.	Ruiz Belvis # 237	San Juan	Residential
LOIZA CLEANERS	2-861424	Amended	LOIZA CLEANERS	LOIZA ST. #1702	San Juan	Industrial
US ARMY CORPS OF ENGINEERS	2-940251	Closure	OLD NAVAL STATION	W-5 SECOND FLOOR	San Juan	State Government
TEXACO PUERTO RICO INC	2-861699	Closure	SAMMY MAIZ AND CO.	BALDORIOTY AVE. & POMARROSA	San Juan	Truck/Transporter

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
TEXACO PUERTO RICO INC	2-861554	Amended	Texaco- Eduardo Conde S/S #232	EDUARDO CONDE AVE. #1928	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861432	Closure	ESSO-Oliver Exterminating	UTUADO ST. #16	San Juan	Commercial
ESSO STANDARD OIL CO PR	2-861441	New	Esso Hotel La concha	Ave Ashford Condado	San Juan	Not Listed
ROSA ELENA JIMENEZ	2-960022	Closure	ROSA ELENA JIMENEZ	CALLE PARIS #245	San Juan	Residential
Rafael Couto	2-870018	Amended	TEXVAN OIL CO.	BARBOSA AVE. #312	San Juan	Gas Station
SOL PUERTO LIMITED	2-860811	Closure	PREVENTIVE MAINT. SERVICE	PARIS ST. #165	San Juan	Industrial
SOL PUERTO LIMITED	2-860780	Closure	ULTRA CHEMICAL	DUARTE ST. #206	San Juan	Not Listed
Autoridad de Acueductos y	2-861489	Amended	CENTRAL OFFICE-CONSERV. SECT.	604 BARBOSA AVE.	San Juan	State Government
SOL PUERTO LIMITED	2-910159	Amended	SHELL S/S #804924	RD ISLA VERDE KM 2.4	San Juan	Gas Station
Autoridad de Acueductos y	2-861494	Closure	ALMACEN MC CRAKEN	52 GUAYAMA ST.	San Juan	Utilities
ESSO STANDARD OIL CO PR	2-861127	Amended	ESSO S/S CO-019	Calle Lotza Esq. Taft # 175	San Juan	Gas Station
Asociación de Empleados del Estado	2-050006	Closure	Asociación de Empleados del Estado	Ave. Ponce De Leon # 463	San Juan	Not Listed
SOL PUERTO LIMITED	2-860934	Amended	SHELL S/S #003360	MARTINO ST. CORNER EMILIANO POLL Bo Cairnito	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860224	Closure	GULF S/S #436	Calle Tapia. Esq. Eduardo Conde	San Juan	Gas Station
SUIZA DAIRY CO. INC.	2-860148	Amended	SUIZA DAIRY - 54280000	AVE. DE DIEGO & SAN PATRICIO	San Juan	Industrial
FRANCISCO QUIÑONES	2-960072	Closure	CHANTRES CLEANERS INC.	CALLE JOSE S. QUIÑONES #524	San Juan	Commercial
Total Petroleum Puerto Rico Corp.	2-860219	Amended	Total Petroleum #3289	EDUARDO CONDE AVE./HAYDEE REXACH	San Juan	Gas Station
Caribbean Petroleum Corporation	2-862023	Closure	PRODUCTOS DE PETROLEO	RUIZ BELVIS ST. #239	San Juan	Not Listed
SOL PUERTO LIMITED	2-860771	Closure	HATO REY TRANSPORT	DUARTE ST. #218	San Juan	Not Listed
MOTORAMBAR-SERVICIOS	2-930035	Amended	MOTORAMBAR	BECHARA ST.	San Juan	Auto Dealership
MOBIL OIL CARIBE	2-860703	New	CARIBE SHIPPING	PORT #9	San Juan	Not Listed
ESSO STANDARD OIL CO PR	2-861119	Amended	ESSO S/S CO-006	ESCORIAL AVE. #557 Caparra heights	San Juan	Gas Station
CENTRO AUTOMOTRIZ SANTA	2-940088	Closure	AUTOS VEGA INC.	BECHARA ST. CORNER SEGARRA	San Juan	Auto Dealership
PUERTO RICO TELEPHONE CO	2-890093	Closure	SAN PATRICIO REPETIDORA	ROOSEVELT AVE.	San Juan	Utilities
ESSO STANDARD OIL CO PR	2-861120	Amended	ESSO S/S CO-008	AVE. F.D. ROOSEVELT Esq. Enseñada Caparra	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860267	Amended	GULF #040	Ave. Kennedy Urb Industrial Bechara	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860336	Amended	GULF #0304	RD #2 KM. 5.0 Ave Kennedy Mang Buchanan	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861137	Amended	ESSO S/S CO-040	PIÑEIRO AVE. #1024	San Juan	Gas Station
VELVIS DEVELOPMENT CORP.	2-950069	Closure	VELVIS DEVELOPMENT CORP.	A ST. #21. MARIO JULIA IND. PARK	San Juan	Industrial
Angel Rivera	2-861566	Amended	Angel Rivera S/S (AntesT taxaco Parque	ROOSEVELT AVE. #950	San Juan	Gas Station
Total Petroleum Puerto Rico Corp.	2-910141	Closure	GPR #2244	MATADERO & C ST.	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860120	Closure	MUNICIPIO DE SAN JUAN	PUBLIC WORKS BLDG.	San Juan	Local Government
TEXACO PUERTO RICO INC	2-880006	Amended	ANGELBERTO REYES S/S # 334	ROOSEVELT AND ESCORIAL AVES.	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-910016	Closure	SANTURCE SODA WATER	RD #2 KM 3.7. KENNEDY AVE.	San Juan	Industrial
TEXACO PUERTO RICO INC	2-861654	Closure	BEST CONTRACTING CORP.	RD. 845 KM. 1,6	San Juan	Not Listed
TEXACO PUERTO RICO INC	2-861569	Amended	Texaco Puerto Nuevo Norte S/S 227	ROOSEVELT AVE. & DE DIEGO 1301	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861559	Amended	Texaco- Las Lomas S/S #213	CENTRAL AVE. CORNER SAN PATRICIO	San Juan	Gas Station
BENJAMIN KAUFFMANN JULIA	2-860937	Amended	Andalucia S/S	ANDALUCIA AVE., CORNER ACAPULCO	San Juan	Gas Station
AUTORIDAD DE EDIFICIOS	2-930051	Amended	Centro Gubernamental Minillas	DE DIEGO AVE. STOP 22	San Juan	State Government
Caribbean Petroleum Corporation	2-860158	Closure	FIRESTONE INTERAMER. 54.189000	MARIO JULIA IND. PARK	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861650	Closure	BETTERROADS ASPHALT CORP.	RD. 845 KM. 1,6	San Juan	Not Listed
Caribbean Petroleum Corporation	2-860318	Amended	GULF #1119	CENTRAL AVE. #1039 Puerto Nuevo	San Juan	Gas Station
US ARMY CORPS OF ENGINEERS	2-080001	Amended	US Naval Air Station	Antigua Base Miramar	San Juan	Not Listed
Asociación de Maestros	2-070012	New	Asociación de Maestros de Puerto Rico	Ave. Ponce de Leon # 452	San Juan	State Government

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
San Juan Development	2-940182	Closure	San Juan Development	Ponce de Leon Ave. #250 Hato Rey	San Juan	Not Listed
Administración Desarrollo y Mejoras a	2-960043	Closure	Villa Panamericana y Las Orquídeas	Road 181 Esq. Ramal Este	San Juan	Residential
Caribbean Petroleum Corporation	2-860117	Amended	AMERICAN INDUSTRIAL LAUNDRY	CORCHADO STREET #1202	San Juan	Gas Station
Rafael Juanbe Lloveras	2-000002	Amended	Gas Service station 5143	Carr. 176	San Juan	Gas Station
LOIZA CLEANERS INC	2-940113	New	LOIZA CLEANERS INC	DE DIEGO AVE. #721	San Juan	Not Listed
Caribbean Petroleum Corporation	2-860194	Amended	GULF S/S #176	RD. 1 CALLE AMATISTA Urb Bucare	San Juan	Gas Station
CENTERS FOR DISEAS. CONT. &	2-940158	New	CENTERS FOR DISEAS. CONT. &	CASIA ST. #2	San Juan	Federal Non-Military
Caribbean Petroleum Corporation	2-860244	Amended	GULF S/S #010	CALLE 52, ESQ. 54 S.E. La Riviera	San Juan	Gas Station
SOL PUERTO LIMITED	2-860996	Amended	SHELL S/S #002453	RD. 21, KM. 5, HMI. 4	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860943	Closure	COOP. TRANSP. METROPOLITANO	RD #21 KM 0.5	San Juan	Not Listed
CRUZ ROJA AMERICANA	2-860242	Amended	GULF S/ S #006	SAN PATRICIO & AVE. CENTRAL Las Lomas	San Juan	Gas Station
SOL PUERTO LIMITED	2-940147	Closure	CRUZ ROJA AMERICANA	Centro Medico Calle 9 E	San Juan	Other
DEPARTAMENTO DE EDUCACION	2-960933	Amended	SHELL S/S #001716	RD. 176, KM.0.2	San Juan	Gas Station
CITIBANK N.A.- HATO REY	2-940090	Closure	ESC. TRINA PADILLA DE SANZ	JESUS T. PIÑEIRO WEST AVE.	San Juan	State Government
P. R. MEDICAL SERV. ADM.	2-861947	Closure	CITIBANK	LOMAS VERDES AVE.	San Juan	Commercial
Jose Fuentes Hernández	2-860688	Closure	NURSING HOME	MEDICAL CENTER	San Juan	Other
ISMAEL GARCIA	2-860649	Amended	ISMAEL GARCIA	CENTRAL & DE DIEGO AVES. Caparra Terrace	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861118	Amended	ESSO S/S CO-004	SAN IGNACIO AVE. #1385	San Juan	Gas Station
P. R. MEDICAL SERV. ADM.	2-861946	Closure	MOTOR POOL	Ave. Jesus T. Piñero # 1771 Summit Hills	San Juan	Not Listed
Autoridad de Acueductos y	2-8611492	Closure	TRANSPORTATION OFFICE - PUERTO	P. R. 2 KM. 2.1 (KENNEDY AVE)	San Juan	Utilities
ESSO STANDARD OIL CO PR	2-861125	Amended	ESSO S/S CO-015	Ave. F. D. Roosevelt # 957 Puerto Nuevo	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861570	Amended	Puerto Nuevo S/S # 220	ROOSEVELT AVE. #1250	San Juan	Gas Station
SOL PUERTO LIMITED	2-860709	Amended	SHELL S/S #804797	ROOSEVELT AVE. COR. ESCORIAL AVE Puerto	San Juan	Gas Station
KWART CORP.	2-860053	Closure	KWART 4490	SAN PATRICIO PLAZA	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861761	Amended	LA RIVERA S/S #215	DE DIEGO AVE. CORNER SO #48 ST.	San Juan	Gas Station
SOL PUERTO LIMITED	2-860808	Closure	WEST INDIA MACHINERY, INC.	ROOSEVELT AVE. CORNER MATADERO	San Juan	Not Listed
NEW CENTER ASSOCIATES	2-940037	Closure	NEW CENTER ASSOCIATES	JOSE OLIVER #6 TRES MONJITAS	San Juan	Residential
SEA-LAND SERVICE, INC.	2-860030	Closure	SEA-LAND SERVICE, INC.	ZONA PORTUARIA	San Juan	Truck/Transporter
US ARMY RESERVE/GARRISON	2-890147	Closure	CPT EURIPIDES RUBIO USARC	BELCAIRE ST. #1	San Juan	Federal Military
FEDERAL AVIATION	2-860106	Closure	FAA SAN JUAN OM	SAN PATRICIO	San Juan	Federal Non-Military
TEXACO PUERTO RICO INC	2-861760	Amended	CUPEY S/S #209	#176 ST. KM. 1.2	San Juan	Gas Station
U.P.R. MEDICAL SCIENCES	2-861953	Amended	U.P.R. MEDICAL SCIENCES CAMPUS	G.P.O. BOX 5067	San Juan	State Government
Caribbean Petroleum Corporation	2-860182	Amended	GULF S/S#163	CALLE 31 INT. 38 Las Lomas	San Juan	Gas Station
ESSO STANDARD OIL CO PR	2-861123	Closure	ESSO SERVICE STATION 77013	SAN PATRICIO AVE. 1406	San Juan	Gas Station
THE SAN JUAN STAR	2-910314	New	THE SAN JUAN STAR	ACACIA ST. MONTEREY IND. PARK	San Juan	Industrial
GOMEZ HERMANOS, INC	2-8651066	Amended	GOMEZ HERMANOS, INC	MUÑOZ RIVERA AVE. #573	San Juan	Auto Dealership
PUERTO RICO PUBLIC BUILDING	2-960007	Closure	COLISEO OLIMPICO DE PUERTO RICO	Apartado 195349	San Juan	Truck/Transporter
CITIBANK N.A.- HATO REY	2-940089	Closure	CITIBANK N.A.- HATO REY	PONCE DE LEON AVE. #252	San Juan	Commercial
SEARS ROEBUCK DE PUERTO	2-900016	Closure	SEARS ROEBUCK	PLAZA LAS AMERICAS	San Juan	Commercial
ESSO STANDARD OIL CO PR	2-861273	Amended	ESSO S/S COB-200	BARBOSA AVE. #221 Esq Calle Navarro	San Juan	Gas Station
ASOCIACION HOSPITAL DEL	2-900058	Amended	ASOCIACION HOSPITAL DEL	AVE. DOMENECH	San Juan	Other
SOL PUERTO LIMITED	2-910149	Amended	SHELL S/S #804789	AVE. JESUS T PIÑEIRO esq De Diego	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861750	Amended	MUÑOZ RIVERA S/S #230	MUÑOZ RIVERA AVE. #560	San Juan	Gas Station

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
VAQUERIA TRES MONJITAS GENERAL SERVICES ADM.	2-860149	Amended	VAQUERIA TRES MONJITAS-54295000	CALLE CHARDON FB & US COURTHOUSE	San Juan	Industrial
HOSPITAL PR REALTY	2-900073	Amended	CLINICA DR. EUGENIO FERNANDEZ	358 PONCE DE LEON AVE.	San Juan	Federal Non-Military
Caribbean Petroleum Corporation	2-860866	Amended	GLADIOLAS s/s	PLAZA LAS AMERICAS SHOPPING CTR.	San Juan	Other
Alfonzo Gomez-Gulf Plaza Inc.	2-860947	Amended	SHELL S/S # 000787	Calle Bolivia Esq. Calle Quisqueya	San Juan	Gas Station
SOL PUERTO LIMITED	2-860867	Amended	Gulf #148	DOMENECH AVE. COR. HOSTOS	San Juan	Gas Station
Caribbean Petroleum Corporation	2-860169	Amended	ROD RODDER	AVE DOMENECH 403 Esq Calle Nueva	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-930034	Closure	INDUSTRIA LECHERA DE P.R.	AVE. F.D. ROOSEVELT #189	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861668	Closure	EL MUNDO INC.	CHARDON AVE.	San Juan	Not Listed
SOL PUERTO LIMITED	2-860957	Amended	SHELL S/S #000523	COLL Y TOSTE ST. Urb Baldrich	San Juan	Gas Station
AUTORIDAD DE EDIFICIOS	2-930049	Closure	EDIFICIO LOTERIA DE PUERTO RICO	CHARDON AVE. NEW SAN JUAN	San Juan	State Government
TEXACO PUERTO RICO INC	2-861575	Amended	Texaco- Roosevelt & Hostos S/S #224	ROOSEVELT AVE. #249 & HOSTOS AVE	San Juan	Gas Station
TEXACO PUERTO RICO INC	2-861754	Closure	PONCE DE LEON S/S #219	PONCE DE LEON AVE. #510 Hato Rey	San Juan	Gas Station
DEPARTAMENTO DE EDUCACION	2-861675	Closure	MANTECADOS PAYCO INC.	TRES MONJITAS IND. DEV.	San Juan	Industrial
CERVECERIA INDIA	2-940239	Closure	ESC. NEMESIO CANALES	RESIDENCIAL NEMESIO CANALES	San Juan	State Government
PLAZA LAS AMERICAS, INC.	2-861659	Closure	CERVECERIA INDIA CORP.	TRES MONJITAS IND. DEV.	San Juan	Industrial
CARIBBEAN INVESTMENT CENTER	2-940184	Amended	PLAZA LAS AMERICAS, INC.	ROOSEVELT AVE. INT. EXPRESO LAS	San Juan	Commercial
SOL PUERTO LIMITED	2-920050	Closure	CARIBBEAN INVESTMENT CENTER	KALF ST. #38	San Juan	Commercial
POLICIA DE PUERTO RICO	2-860963	Amended	SHELL S/S # 002887	MUÑOZ RIVERA AVE. STOP 6 1/2 Puerta de Tierra	San Juan	Gas Station
Caribbean Petroleum Corporation	2-950059	Closure	BASE AEREA SALVAADOR ROIG	AEROPUERTO ISLA GRANDE	San Juan	State Government
ESSO STANDARD OIL CO PR	2-910309	Closure	PAJADERIA ANTIGUA LISBOA	ROOSEVELT AVE. #1316	San Juan	Commercial
FUNERARIA BUXEDA	2-940078	Closure	AJ. DE COMUNICACIONES	MUÑOZ RIVERA AVE. & COLL ST.	San Juan	Utilities
SMURFIT FIBRAS	2-940075	New	FUNERARIA BUXEDA	CESAR GONZALEZ AVE. #574	San Juan	Other
BERMUDEZ & LONGO, INC.	2-862015	Closure	SMURFIT FIBRAS INTERNACIONALES	JUAN CALAF ST. TRES MONJITAS	San Juan	Industrial
ESSO STANDARD OIL CO PR	2-861427	Closure	BERMUDEZ & LONGO, INC.	P.O. BOX 1213	San Juan	Not Listed
AUTORIDAD FINANCIAMIENTO DE	2-990064	New	COLISEO DE PUERTO RICO	AVE. DOMENECH	San Juan	Other
Egida del Abogado	2-970012	Closure	Egida del Abogado	AVE. CENTRO DE SAN JUAN	San Juan	Not Listed
AMERICAN LAWN MAINTENANCE	2-860012	Closure	Antillas Exterminating/AMERICAN LAWN	ONEILL G-4	San Juan	Commercial
MUNICIPIO DE SAN JUAN / DPTO.	2-940289	Closure	CDT DR. JAVIER JAVIER ANTON	CALLE PINERO ESQ. VALLEJO	San Juan	Local Government
ESSO STANDARD OIL CO PR	2-861416	Closure	GOMEZ HNOS. INC	MUÑOZ RIVERA AVE. CORNER PIÑERO	San Juan	Commercial
U.S. Marine Corp	2-020032	New	Hangar 21, Naval Reservation	Aeropuerto Isla Grande	San Juan	Federal Military
Alruss Extrusion and Finishing Corp.	2-970043	Closure	Alruss Extrusion and Finishing Corp.	Federico Costa # 53	San Juan	Industrial
Condominio Segovia	2-960059	Closure	Condominio Segovia	Calle Sargento Luis Medina	San Juan	Residential
MANUEL I. RAMOS CARLO	2-950001	Closure	EL MONTE CLEANERS	MUÑOZ RIVERA AVE.	San Juan	Other
RADIO TELEPHONE COMM PR INC.	2-890194	Amended	RADIO COMM SERVICES	150 PONCE DE LEON AVE.	San Juan	Utilities
TEXACO PUERTO RICO INC	2-940117	Amended	SANTESTEBAN CLEMENTE	PONCE DE LEON AVE. #75 PDA. 26	San Juan	Commercial
TEXACO PUERTO RICO INC	2-861651	Closure	ALRUSS EXTRUSION FINISH CORP	TRES MONJITAS IND. DEV.	San Juan	Not Listed
J.C. PENNEY INC	2-900101	Closure	J.C. PENNEY INC	PLAZA LAS AMERICAS SHOPPING CTR.	San Juan	Commercial
AUTORIDAD DE EDIFICIOS	2-930045	Closure	SUPERINTENDENCIA DE LA POLICIA	ROOSEVELT AVE.	San Juan	State Government
TEXACO PUERTO RICO INC	2-861755	Amended	SUIZA DAIRY S/S # 205	ING. C. GONZALEZ AVE. #555	San Juan	Gas Station
SOL PUERTO LIMITED	2-860825	Closure	EL MUNDO INC.	CARLOS CHARDON AVE.	San Juan	Not Listed
SUCESION MARTI TORRES	2-930061	Closure	SUCESION MARTI TORRES	PONCE DE LEON AVE. #555	San Juan	Commercial

Owner Name	AltFacilityID	Notification Description	Facility Name	Street Address	City	Facility Description
Total Petroleum Puerto Rico Corp.	2-910067	Amended	TOTAL 1012	CENTRAL AVE. #263	San Juan	Gas Station
Jose Feliciano	2-910020	Closure	Banco Bilbao Vizcaya	MUNOZ RIVERA AVE. #254	San Juan	Commercial
PUERTO RICO NATIONAL GUARD	2-861928	Closure	Hato Rey Armory	HATO REY ARMORY	San Juan	State Government
SUPERIOR PAINT MFG. INC	2-861088	Closure	SUPERIOR PAINT MFG. INC	TRES MONJITAS IND PARK	San Juan	Industrial
BANCO POPULAR DE P. R.	2-940195	Closure	BANCO POPULAR DE P.R.	BUONOMO ST. END	San Juan	Other
LUIS SIERRA	2-960029	Closure	L.S. QUILTING & TEXTILES INC.	AVE. JOSEOLIVER ESQ. MANUEL CAMUÑAS	San Juan	Industrial
ESSO STANDARD OIL CO PR	2-861448	Amended	ADMINISTRADOR TERRENOS	CHARDON AVE.	San Juan	State Government
UNION DE INVERSIONES IJARQ.	2-990045	Closure	UNION PLAZA	AVE. PONCE DE LEON #416	San Juan	Commercial
P. R. COMMUNICATIONS	2-861938	Closure	CENTRAL OFFICE	MUNOZ RIVERA AVE./COLL Y TOSTE	San Juan	Utilities
MUNICIPIO DE SAN LORENZO	2-880161	Amended	DEPARTAMENTO OBRAS PUBLICAS	APARTADO K SAN LORENZO	San Lorenzo	Local Government
TEXACO PUERTO RICO INC	2-861734	Amended	JOSE DE DIEGO S/S #367	ROAD 183 KM 9.7	San Lorenzo	Gas Station
Caribbean Petroleum Corporation	2-860360	Amended	GULF S/S 052	RD. 181 KM. 6.1 Bo Jaqual	San Lorenzo	Gas Station
Patrick Andrews- Scotiabank	2-010004	Closure	Paradise of P>R> Scotiabank	CARR. 183 KM. 11.2. ESQ. PR-916	San Lorenzo	Commercial
ALEJANDRO DAVILA	2-980141	Amended	ALEJANDRO DAVILA	ST. RD. 183 KM. 8.8	San Lorenzo	Gas Station
COMPANIA DE FOMENTO	2-990066	Closure	San Lorenzo Industrial Area and	RD. 183 KM. 8.8	San Lorenzo	Industrial
ALPCO DIV. AMITY LEATHER PROD	2-862014	New	ALPCO DIV. AMITY LEATHER PROD	RD. 183 KM 7.9	San Lorenzo	Not Listed
COMPANIA DE FOMENTO	2-940257	Closure	T-0901-0-68	RD. 183 KM 7.9	San Lorenzo	Utilities
Caribbean Petroleum Corporation	2-860251	Amended	GULF S/S #018	RD. 181 Int. Carr. 183 KM. 30	San Lorenzo	Gas Station
Carlos Montañez	2-861248	Amended	EX-ESSO S/S 2P-263	JOSE DE DIEGO ST. #1115	San Lorenzo	Gas Station
PUERTO RICO TELEPHONE CO	2-920039	Amended	San Lorenzo O.C	LUIS MUNOZ RIVERA ST. Esq Verona	San Lorenzo	Utilities
SOL PUERTO LIMITED	2-910227	Amended	GHELL S/S 003735	JOSE DE DIEGO ST. #111	San Lorenzo	Gas Station
Caribbean Petroleum Corporation	2-860282	Amended	SHELL S/S #066	RD. 181 KM. 1.1 Bo Quemado	San Lorenzo	Gas Station
TEXACO PUERTO RICO INC	2-861250	Amended	Texaco- William Averno	RD. 181 KM. 13.8	San Lorenzo	Gas Station
VICTOR M TORRES, JULIO TORRES	2-900077	Amended	Cerro Gordo S/S	RD. 916 KM 1.0	San Lorenzo	Gas Station
TEXACO PUERTO RICO INC	2-861726	Amended	SAN LORENZO S/S # 287	ROAD 181 KM 2.1	San Lorenzo	Gas Station
Total Petroleum Puerto Rico Corp.	2-910136	Amended	GPR #1225	RD. 183 KM 2.6	San Lorenzo	Gas Station
GEORGE BORGES CONTRERAS	2-940074	Amended	EL PUEBLO S/S	LUIS RIVERA ST. #160	San Lorenzo	Gas Station
Caribbean Petroleum Corporation	2-860170	Amended	GULF S/S #149	RD 183 KM 3.9	San Lorenzo	Gas Station
LANCO MTG CORP	2-860788	Closure	LANCO MTG CORP	URB. APONTE #5	San Lorenzo	Industrial
CIA PETROLERA CARIBE INC	2-860741	Closure	Vazquez S/S	RD. 119 KM 27.6	San Sebastian	Gas Station
Santos Vazquez	2-990073	Amended	Vazquez Service Station	Carr. 119 K. 29 Bo. Hoya Mala	San Sebastian	Gas Station
ESSO STANDARD OIL CO PR	2-861314	Amended	ESSO S/S 2P-331	RD. 125. KM. 20.1	San Sebastian	Gas Station
JOSE LUIS GONZALEZ	2-940018	Amended	LEE S/S	ST RD #111, KM 30.3	San Sebastian	Gas Station
Autoridad de Acueductos y	2-920062	Closure	PLANTA DE FILTROS SAN SEBASTIAN	RD. 449 END	San Sebastian	Utilities
PUERTO RICO TELEPHONE CO	2-890065	Closure	SAN SEBASTIAN C.O.	M J CABRERA ST. RD. #119 KM 34	San Sebastian	Local Government
Municipio San Sebastian	2-980034	Amended	Garage Municipal	Carr. 446 Sector Salcupedes	San Sebastian	Gas Station
CIA PETROLERA CARIBE INC	2-910361	Amended	TORREFACCION CAFE COQUI	RD. #435	San Sebastian	Gas Station
Agustin Font	2-020030	Closure	Agustin Font	Calle E. Hostos No. 28	San Sebastian	Gas Station
RUBEN FIGUERO & MARIA CORTES	2-900052	New	Figuera S/S	RD. #125 KM 16.8, Hato Arriba Ward	San Sebastian	Gas Station
Autoridad de Energia Electrica	2-860755	Amended	TALLER DE MECANICA AUTOMOTRIZ	Carr. 119 Salida hacia Carnuy	San Sebastian	Utilities
JOSE M. RODRIGUEZ CORIANO	2-930028	Amended	SALTOS SERVICE STATION	RD. 445 KM 1.1	San Sebastian	Gas Station
CIA PETROLERA CARIBE INC	2-860736	New	CIA PETROLERA CARIBE INC	RD. #111	San Sebastian	Gas Station
ISGARDO FUENTES	2-860726	Amended	Servicentro Fuentes	RD 111 km 31.8	San Sebastian	Gas Station
CIA PETROLERA CARIBE INC	2-860731	Amended	CIA. PETROLERA CARIBE, INC.	Ave. Estrada #1500	San Sebastian	Gas Station

Appendix V Additional Provided Documentation



12 de octubre de 2021

Sr. Rafael A. Machargo Maldonado
Secretario DRNA
San Juan, Puerto Rico.

RE: AUTORIZACIÓN PARA ACCESAR
INFORMACIÓN SOBRE LA PROPIEDAD
COMERCIAL UBICADA EN CARR. PR-844, KM. 4,
BO. CUPEY, SAN JUAN, PR.

Estimada Sr. Machargo:

Reciba un cordial saludo de parte del equipo de CTS Group, Inc. Nuestra firma ha sido contratada para realizar una Evaluación Ambiental (Fase I) en la propiedad en referencia la cual se ubica en el municipio de San Juan. La ubicación de dicha propiedad es latitud 18°20'54.04"N y longitud 66° 2'32.47"W y el número de catastro es: 115-084-398-85. Con dicho Estudio se espera establecer la presencia de algún tipo de condición ambiental reconocida (si alguna) como producto de sus operaciones y la de los negocios adyacentes a la propiedad en cuestión. A raíz de lo antes mencionado, le solicitamos respetuosamente nos provea información sobre el caso en referencia o su autorización para ir a verificar el expediente de la propiedad.

Le agradecemos su disponibilidad y cooperación para asistirnos en este asunto.

Cordialmente,

A handwritten signature in blue ink, appearing to read "Mayte Pérez Patiño", is written over a horizontal line.

Mayte Pérez Patiño
Project Coordinator
CTS Group, Inc.
Tel. (787) 507-0017
E-mail: mayte.perez@ctsgrouppr.com



ENVIRONMENTAL QUESTIONNAIRE

CLIENT: TFS Housing, LLC.

SITE: Vacant Parcels of Land – San Juan, PR.

Road PR-844, Km. 4, Cupey Ward
STREET ADDRESS OF SUBJECT PROPERTY

<u>San Juan</u>	<u>Puerto Rico</u>	<u>00926</u>
CITY	STATE	ZIP CODE

<u>Ihosvany Negret MS. M. Eng. – Environmental Consultant</u>			
NAME & TITLE OF PARTY COMPLETING QUESTIONNAIRE			
<u>400 Calle Juan Calaf, Suite 235</u>	<u>San Juan</u>	<u>PR</u>	<u>00918</u>
STREET ADDRESS	CITY	STATE	ZIP
<u>CTS Group, Inc.</u>	<u>787.507.0017</u>	<u>info@ctsgrouppr.com</u>	
NAME OF FIRM	PHONE NUMBER	E-MAIL	

NAME AND POSITION OF INTERVIEWED PERSONS:

Mr. Carlos Gonzalez – TFS Housing, LLC. - Property Owner’s Rep.

Mr. Gabriel Colon – TFS Housing, LLC. - Property Management

Mr. Ihosvany Negret - CTS Group – Environmental Professional



ENVIRONMENTAL QUESTIONNAIRE

Persons to be Questioned – The following questions should be asked of

- the current owner of the property
- any commercial occupant of the property (residential occupants do not need to be asked the questions)

The preparer should ask each person to answer all questions to the best of the respondent's actual knowledge and in good faith. When completing the site visit portion of the questionnaire the preparer should be sure to observe the property and the buildings and other structures on the property. All questions should be answered as indicated in the form.

	QUESTION	LENDER/SERVICER OR OBSERVED DURING SITE VISIT	OWNER	OCCUPANTS
1.	Is the <i>property</i> or any <i>adjoining property</i> used for an industrial use?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
2.	To the best of your knowledge, has the <i>property</i> or any <i>adjoining property</i> been used for an industrial use in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
3.	Is the <i>property</i> or any <i>adjoining property</i> used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
4.	To the best of your knowledge has the <i>property</i> or any <i>adjoining property</i> been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown



	QUESTION	LENDER/SERVICER OR OBSERVED DURING SITE VISIT	OWNER	OCCUPANTS
5.	Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automobile or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the <i>property</i> or at the facility?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
6.	Are there currently, or to the best of your knowledge have there been previously, any industrial <i>drums</i> (typically 55 gal [208 L]) or sacks of chemicals located on the property or at the facility?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
7.	Has <i>fill dirt</i> been brought onto the property that originated from a contaminated site or that is of an unknown origin?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
8.	Are there currently, or to the best of your knowledge have there been previously, any <i>pits, ponds, or lagoons</i> located on the <i>property</i> in connection with waste treatment or waste disposal?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
9.	Is there currently, or to the best of your knowledge have there been previously, any stained soil on the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
10.	Are there currently, or to the best of your knowledge have there been previously, any unregistered storage tanks (above or underground) located on the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown



	QUESTION	LENDER/SERVICER OR OBSERVED DURING SITE VISIT	OWNER	OCCUPANTS
11.	Are there currently, or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the <i>property</i> adjacent to any structure located on the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
12.	Are there currently, or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
13.	If the <i>property</i> is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated contaminated by any government environmental/health agency?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
14.	Does the <i>owner</i> or <i>occupant</i> of the <i>property</i> have any knowledge of <i>environmental liens</i> or governmental notification relating to the past or recurrent violations of environmental laws with respect to the <i>property</i> or any facility located on the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
15.	Has the <i>owner</i> or <i>occupant</i> of the <i>property</i> been informed of the past or current existence of <i>hazardous substances</i> or petroleum <i>products</i> or environmental violations with respect to the <i>property</i> or any facility located on the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown



	QUESTION	LENDER/SERVICER OR OBSERVED DURING SITE VISIT	OWNER	OCCUPANTS
16.	Does the <i>owner</i> or <i>occupant</i> of the property have any knowledge of any environmental site assessment of the <i>property</i> or facility that indicated the presence of <i>hazardous substances</i> or <i>petroleum products</i> on, or contamination of, the <i>property</i> or recommended further assessment of the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
17.	Does the <i>owner</i> or <i>occupant</i> of the <i>property</i> know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any <i>hazardous substance</i> or <i>petroleum products</i> involving the <i>property</i> by any owner or occupant of the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
18.	Does the <i>property</i> discharge wastewater on or adjacent to the <i>property</i> other than storm water into a sanitary sewer system?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
19.	To the best of you knowledge, have any <i>hazardous substances</i> or <i>petroleum products</i> , unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
20.	Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCB's on the <i>property</i> ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown

Please provide details relating to any question answered "yes" in the space provided. Attach additional sheets or informative documents if necessary.



The Environmental Professional must complete the following required information.

This questionnaire was completed by:

Name:	Ihosvany Negret MS. M. Eng.
Title:	Lead Environmental Consultant
Firm:	CTS Group, Inc.
Address:	400 Calaf St. Ste. 235 San Juan, PR 00918
Phone Number:	787-507-0017
Date:	October 14, 2021

If the preparer is different than the user, complete the following:

Name of Users:	PR Housing Authority/TFS Housing, LLC.
Address of Users:	PR Housing Authority: San Juan, PR. TFS Housing, LLC. /San Juan, PR
Phone Number of User:	
Relationship of Preparer to Site:	None
Relationship of Preparer to User:	Consultant

The undersigned represents that to the best of his/her knowledge the above statements and facts are true and correct and to the best of his/her knowledge no material facts have been suppressed or misstated.

Date: 10/25/2021

Signature: _____

Title: Environmental Professional



Subject Property Legal Descriptions

---PRIMERO: Manifiesta el compareciente de la parte vendedora que a corporación por él representada es dueña en pleno y absoluto dominio de los inmuebles que tienen la siguiente descripción:-----

---a): **RUSTICA:** Parcela de Terreno identificada en el plano como Parcela "H" radicada en el Barrio Cupey de Río Piedras del termino municipal de San Juan, Puerto Rico, con una cabida superficial de nueve mil quinientos treinta y siete punto dos mil trescientos sesenta y cinco (9,537,2365) metros cuadrados equivalentes a dos punto cuatro dos seis cinco (2.4265) cuerdas. En linderos **Norte**, con la Parcela A del Plano de inscripción donde esta localizado el Condominio Alturas del Bosque I; **Sur**, con la parcela G del plano de inscripción la cual constituye el acceso a varias parcelas del plano de inscripción; **Este**, con terrenos de Jesús Solís; **Oeste**, con la parcela G del plano de inscripción la cual constituye el acceso a varias parcelas del plano de inscripción."

---Está inscrita al folio 17 del tomo 851, de Río Piedras Sur, Finca número 23,601.-----

---(b): "**RUSTICA**: Parcela de terreno identificada en el plano como Parcela "G" radicada en el Barrio Cupey de Rio Piedras del termino municipal de San Juan, Puerto Rico, con una cabida superficial de ocho mil cuatrocientos noventa y cuatro punto cuatro mil ochocientos noventa y nueve (8,494.4899) metros cuadrados equivalentes a dos punto mil seiscientos doce (2.1612) cuerdas. En linderos **Norte**, con la parcela H del plano de inscripción, con la parcela de la Autoridad de Acueductos y Alcantarillados de Puerto Rico y con la parcela F del plano de inscripción; **Sur**, con el remanente de la finca principal de la cual se segrega y con terrenos de Florencio Pérez; **Este**, con la parcela H del plano de inscripción, con la parcela A del plano de inscripción donde esta localizado el Condominio Alturas del Bosque I y con la calle existente; **Oeste**, con la parcela F del plano de inscripción con terrenos de Pablo González y con la parcela E del plano de inscripción."

—Está inscrita al folio 13 del tomo 851, de Rio Piedras Sur, Finca número 23,600.-----

—(c): “**RUSTICA:** Parcela de terreno identificada en el plano como Parcela “F” radicada en el Barrio Cupey de Rio Piedras del termino municipal de San Juan, Puerto Rico, con una cabida superficial de veinte mil cuatrocientos treinta y dos punto ocho mil ochenta y cinco (20,432.8085) metros cuadrados equivalentes a cinco punto mil novecientos ochenta y siete (5.1987) cuerdas. En linderos **Norte**, con la parcela de la Autoridad de Acueductos y Alcantarillados de Puerto Rico, con terrenos de Pablo González y con la parcela E del plano de inscripción; **Sur**, con la parcela G del plano de inscripción la cual; constituye el acceso a varias parcelas del plano de inscripción y con terrenos de Pablo González; **Este**, con la parcela G del plano de inscripción la cual constituye el acceso a varias parcelas del plano de inscripción; **Oeste**, con la parcela “E” del plano de inscripción.” -----
—Está inscrita al folio 9 del tomo 851, de Rio Piedras Sur, Finca número 23,599.-----

—(d): “**RUSTICA:** Parcela de terreno identificada en el plano como Parcela “E” radicada en el Barrio Cupey de Rio Piedras del termino municipal de San Juan, Puerto Rico, con una cabida superficial de cincuenta y cuatro mil veintitrés punto mil novecientos diecisiete (54,023.1917) metros cuadrados equivalentes a trece punto siete cuatro cuatro cinco (13.7445) cuerdas. En linderos **Norte**, con terrenos de Benjamín Medina y con terrenos de Manuel Bonilla; **Sur**, con terrenos de la Sucesión Vangelio Andino, terrenos de Julia Ayala, Parcela F del plano de inscripción y con remanente de la finca principal de la cual se segrega; **Este**, con la parcela “D” de plano de inscripción donde esta localizado el Condominio Alturas del Bosque II, con la parcela perteneciente a la Autoridad de Acueductos y Alcantarillados de Puerto Rico; **Oeste**, con terrenos de la Sucesión José Andino, terrenos de Julia Ayala y terrenos de Víctor Fernández; **Este**, parcela “F” del plano de inscripción, con parcela G de plano de inscripción la cual constituye el acceso a varias parcelas del plano de inscripción y con el remanente de la finca principal de la cual se segrega.”

—Está inscrita al folio 5 del tomo 851, de Rio Piedras Sur, Finca número 23,598.-----

<p>—(e): “RUSTICA: Predio de terreno radicado en el Barrio Cupey de Rio Piedras, del termino municipal de San Juan, Puerto Rico, con una cabida superficial de siete punto mil trescientos veintidós (7.1322) cuerdas, equivalentes a veintiocho mil treinta y dos punto mil setecientos veintinueve (28, 032. 1720) metros cuadrados en lindes por el Norte, con la parcela G del plano de inscripción y la cual constituye el acceso directo a las parcelas segregadas; por el Sur, con terrenos de Edrulfo Astacio, Sucesión Vangelio Andino y con la carretera estatal numero “PR-844”; por el Este, con terrenos de Adrián Betancourt y con la parcela G del plano de inscripción la cual constituye el acceso para varias parcelas del plano, y por el Oeste, con terrenos de la Sucesión de Vangelio Andino y con la parcela E del plano de inscripción. REMANENTE luego de Rectificación de Cabida y Segregación de parcelas E de cincuenta y cuatro mil veintitrés punto mil novecientos diecisiete (54,023.1917) m.c.; Parcela F de veinte mil cuatrocientos treinta y dos punto ocho mil ochenta y cinco (20,432.8085 m.c.) metros cuadrados; Parcela G de ocho mil cuatrocientos noventa y cuatro punto cuatro mil ochocientos noventa y nueve (8,494,4899) y la Parcela H de nueve mil quinientos treinta y siete punto dos mil trescientos setenta y dos metro cuadrados (9,537.2372 m.c.), según consta en la escritura treinta y cinco (#35) otorgada en San Juan, Puerto Rico el uno (1) de febrero de dos mil doce (2012) ante Rafael A. Malavé Lebrón e inscrita al folio ciento veintiuno (121) del tomo ochocientos cuarenta y cinco (845), inscripción catorceava (14ª).” -----</p>	<p>Barrio Cupey de Rio Piedras, del termino municipal de San Juan, Puerto Rico, con una cabida superficial de siete punto mil trescientos veintidós (7.1322) cuerdas, equivalentes a veintiocho mil treinta y dos punto mil setecientos veintinueve (28, 032. 1720) metros cuadrados en lindes por el Norte, con la parcela G del plano de inscripción y la cual constituye el acceso directo a las parcelas segregadas; por el Sur, con terrenos de Edrulfo Astacio, Sucesión Vangelio Andino y con la carretera estatal numero “PR-844”; por el Este, con terrenos de Adrián Betancourt y con la parcela G del plano de inscripción la cual constituye el acceso para varias parcelas del plano, y por el Oeste, con terrenos de la Sucesión de Vangelio Andino y con la parcela E del plano de inscripción. REMANENTE luego de Rectificación de Cabida y Segregación de parcelas E de cincuenta y cuatro mil veintitrés punto mil novecientos diecisiete (54,023.1917) m.c.; Parcela F de veinte mil cuatrocientos treinta y dos punto ocho mil ochenta y cinco (20,432.8085 m.c.) metros cuadrados; Parcela G de ocho mil cuatrocientos noventa y cuatro punto cuatro mil ochocientos noventa y nueve (8,494,4899) y la Parcela H de nueve mil quinientos treinta y siete punto dos mil trescientos setenta y dos metro cuadrados (9,537.2372 m.c.), según consta en la escritura treinta y cinco (#35) otorgada en San Juan, Puerto Rico el uno (1) de febrero de dos mil doce (2012) ante Rafael A. Malavé Lebrón e inscrita al folio ciento veintiuno (121) del tomo ochocientos cuarenta y cinco (845), inscripción catorceava (14ª).” -----</p>
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Additional Provided Documents



12 de octubre de 2018

AUTORIZACIÓN

Ing. Héctor Rodríguez Echevarría
Director Ejecutivo Interino
Oficina de Gerencia de Permisos
PO Box 41118
San Juan, Puerto Rico 00940

**ENSUEÑO (ANTES ALTOS DE LAS CUMBRES)
PR 844, KM 4.0, BO. CUPEY, SAN JUAN
CASO OGPE #2018-241750-SRA-020069**

ICP SJ-16-399

Estimado ingeniero Rodríguez:

El **Programa de Arqueología y Etnohistoria** del Instituto de Cultura Puertorriqueña ha evaluado los documentos relacionados al proyecto de referencia, recibidos a través de la División de Arqueología y Conservación Histórica de la Oficina de Gerencia de Permisos (OGPe).

La evaluación realizada sugiere que, basado en los datos existentes al presente, las probabilidades de impactar un recurso arqueológico, según definido por la Ley 112 del 20 de julio de 1988, según enmendada, son mínimas.

Por lo tanto, en lo concerniente a recursos culturales de naturaleza arqueológica, **no tenemos objeción** al proyecto según fue radicado y evaluado.

Le notificamos que esta autorización es de tipo parcial y que el proponente queda sujeto a las responsabilidades y obligaciones que impone la Ley 112 del 20 de julio de 1988, según enmendada. Esta establece que, **se deberá paralizar todo tipo de actividad de excavación, movimiento y remoción de la corteza terrestre, y notificar en un plazo de veinticuatro (24) horas al Consejo de Arqueología Terrestre, en caso de que, durante el desarrollo del proyecto, se descubra o impacte algún depósito, elemento, estructura o vestigio de naturaleza arqueológica.**

Se le apercibe que el incumplimiento de estos requerimientos podrá ser objeto de sanciones administrativas según lo establecido en las citadas leyes.

Esta autorización tiene **vigencia de (1) año**.

Cordialmente,

Dr. Carlos Pérez Merced
Director Interino
Programa de Arqueología y Etnohistoria

CAPM/GOE/mgb

PROGRAMA DE ARQUEOLOGÍA Y ETNOHISTORIA

Apartado 9024184, San Juan, Puerto Rico 00902-4184

ESA Phase I - ASTM E1527-13 - TP 3090 (787) 703-2520 / (787) 724-0700 ext. 1362 Puerto Rico.





GOBIERNO DE PUERTO RICO
Instituto de Cultura Puertorriqueña

19 DE OCTUBRE DE 2018

SISTEMA INTEGRADO DE PERMISOS

Oficina de Gerencia de Permisos
PO Box 41179
San Juan, Puerto Rico 00940-1179

NO OBJECCIÓN

CASO OGPe: 2018-241750-SRA-020069
MUNICIPIO: SAN JUAN
UBICACION: URB. ENSUEÑO
CARRETERA 844, KM. 4
BARRIO CUPEY, SAN JUAN, PUERTO RICO
NUMERO DE CATASTRO: 115-084-398-85-000 Y 115-084-398-86-000
CALIFICACION: B-1
PROPONENTE: ING. HECTOR LOPEZ

Estimados señores:

El Instituto de Cultura Puertorriqueña (ICP), por medio de su Programa de Patrimonio Histórico Edificado (ICP-PHE), ha examinado el proyecto de referencia para determinar si afecta Propiedades de Valor Histórico y Arquitectónico que estén protegidas, o sean elegibles a serlo, bajo las leyes y reglamentos que nuestra agencia tiene responsabilidad de administrar, como agencia primaria, endosante o recomendante. Estas leyes y reglamentos incluyen, entre otros:

1. La ley 89 del 21 de junio de 1955 S.E., Ley Orgánica del Instituto de Cultura Puertorriqueña, en especial el inciso 4(a)(7), “Determinar que edificios o estructuras son de valor histórico o artístico en Puerto Rico. (...)” y el inciso 4(a)(8), “Asesorar a la Junta de Planificación en la reglamentación de construcción en aquellas zonas que determine como zonas de valor histórico. (...)”.
2. La ley 89 del 21 de junio de 1955 S.E., Ley Orgánica del Instituto de Cultura Puertorriqueña, en su inciso 4(b)(3) según enmendado por la ley 119 del 26 de septiembre de 2005, que permite “adoptar, enmendar o derogar, por conducto de su Junta de Directores, las reglas que gobiernen [el] funcionamiento y el descargo de los poderes” concedidos e impuestos al ICP por ley, y la imposición de multas administrativas y/u otras sanciones por su incumplimiento o violación.

Programa de Patrimonio Histórico Edificado

Apartado 9024184, San Juan, Puerto Rico 00902-4184

Teléfono: (787) 724-0700

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.



MUNICIPIO: SAN JUAN
UBICACION: URB. ENSUEÑO
CARRETERA 844, KM. 4
BARRIO CUPEY, SAN JUAN, PUERTO RICO
NUMERO DE CATASTRO: 115-084-398-85-000 Y 115-084-398-86-000
CALIFICACION: B-1
19 DE OCTUBRE DE 2018
PÁGINA 2 DE 2

3. El Reglamento Conjunto de Permisos para Obras de Construcción y Uso de Terrenos, Reglamento 31 de la Junta de Planificación (“Reglamento Conjunto”) con vigencia del 29 de noviembre de 2010, en todos los incisos aplicables a zonas y sitios históricos, en especial los Capítulos 54 (Reglamento de Zonas y Sitios Históricos) y 60 (Designación de Zonas y Sitios Históricos) – incluyendo, en las zonas históricas, edificios elegibles, no elegibles, solares vacíos y espacios públicos.
4. Las zonificaciones SH (antes CR-H) cubiertas por el Capítulo 19, Regla 19.29 del Reglamento Conjunto.
5. La disposición del Capítulo 54, Regla 54.5, §54.5.6 del Reglamento Conjunto que establece, para las Plazas de Recreo y edificios circundantes, las reglas de la protección del Patrimonio Histórico.
6. La Resolución JPE-047 de 1994, la cual requiere evaluación del ICP para consultas y usos a darse a edificios públicos construidos anteriores a 1960.
7. La exigencia de endoso o comentario del ICP aplicable a propiedades designadas de valor histórico y arquitectónico por otros medios, tales como:
 - a. Resolución de la Asamblea Legislativa
 - b. Monumentos Históricos designados por la Junta de Directores del ICP
 - c. Propiedades designadas por un plan de ordenamiento territorial de un Municipio Autónomo y que esté en vigor, o por el Plan de Uso de Terrenos de Puerto Rico
 - d. Ser declaradas históricas en un plan especial de zonificación.
 - e. Otras propiedades referidas por cualquier componente del Sistema Integrado de Permisos (SIP), la Oficina de Permisos de un Municipio Autónomo con poder de otorgar permisos, la Junta de Planificación, el Programa de Arqueología y Etnohistoria del ICP, u otra agencia o entidad de gobierno con poder reglamentario.
8. Petición a solicitud voluntaria de un propietario o derechohabiente de una propiedad.

De acuerdo a nuestros expedientes y la información provista, el Programa de Patrimonio Histórico Edificado emite su **NO OBJECCIÓN** para la construcción de 88 unidades de vivienda unifamiliares de interés social dentro de los predios de terreno.

Este documento tiene vigencia de un (1) año a partir de su emisión.

Sin otro particular, quedo.



Mildred González Valentín, MArch.
Directora Interina, Programa de Patrimonio Histórico Edificado
Instituto de Cultura Puertorriqueña

MGV/jcsl/dvt

Cc: Expediente caso PPHE, ICP

Programa de Patrimonio Histórico Edificado

Apartado 9024184, San Juan, Puerto Rico 00902-4184

ESA Phase I - ASTM E1527-13 - TFS Housing, L.C. (Ensueño Cupey) San Juan, Puerto Rico.





GOBIERNO DE PUERTO RICO

Negociado de Telecomunicaciones
Sección de Infraestructura y Tecnologías de Telecomunicaciones

17 de octubre de 2018

Ing. Héctor Rodríguez Echevarría
Secretario Auxiliar Interino
Oficina de Gerencia de Permisos
Departamento de Desarrollo Económico y Comercio
P. O. Box 41179
San Juan, PR 00940-1179

Asunto: Punto de Conexión para Infraestructura de Telecomunicaciones
Número de Caso: JRTPR 2016-RI-0372 (OGP^E 2018-241750-SRI-020078)
Proyecto: Ensueño (Antes Altos de Las Cumbres)
Dirección: Carr. PR-844, Km 4.0, Bo. Cupey Bajo, San Juan, Puerto Rico
Catastro: 115-084-398-86

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

Estimado ingeniero Rodríguez Echevarría:

El Negociado de Telecomunicaciones de Puerto Rico (NET), evaluó los documentos presentados sobre el proyecto en el epígrafe. Adjunto le devolvemos una copia del plano, donde se indica en rojo el punto de conexión que deberá incluir en los planos finales, para la infraestructura de telecomunicaciones.

Este documento no constituye un endoso a la referida acción, ni representa un relevo de cumplimiento respecto a todos los reglamentos aplicables. Una vez se incorporen las recomendaciones a los planos, la Parte Proponente está obligada a preparar el plano final de infraestructura de telecomunicaciones, conforme a la Ley Número 161 de 1 de diciembre de 2009, según enmendada, conocida como la Ley para la Reforma del Proceso de Permisos de Puerto Rico (Ley 161); y el Reglamento para el Endoso de Planos de Infraestructura y Servidumbres para Facilidades de Telecomunicaciones y Televisión por Cable del NET, (Reglamento Número 7393, revisado).

En esta etapa, se impone la obligación de tramitar, ante la Oficina de Gerencia de Permisos (OGPE), una nueva Solicitud de Recomendaciones para Infraestructura de Telecomunicaciones, mediante el Formulario JRTPR F-101, que está disponible en la sección de Infraestructura (Endosos – Formularios) de nuestra página de Internet: <http://www.jrtp.pr.gov/endosos-formularios/>.

De ser requerido, la propuesta incluirá el deslinde y la descripción para una Servidumbre de Infraestructura Soterrada de Telecomunicaciones. Este diseño se realizará de conformidad con el citado



JRTPR 2016-RI-0372 (OGPE 2018-241750-SRI-020078)

17 de octubre de 2018

Pág. 2

Reglamento enmendado 7393, del NET. El dueño o su representante constituirán, mediante Plano de Inscripción y Escritura, la Servidumbre de Infraestructura Soterrada de Telecomunicaciones, en estricto cumplimiento con

las disposiciones del citado reglamento. Este requisito es de observancia específica, y constituye un requisito estatutario, para que la Parte Proponente pueda obtener un Permiso de Construcción. Es una obligación previa al otorgamiento del Permiso de Construcción, presentar a la consideración del NET, el Plano de Infraestructura de Telecomunicaciones, para Aprobación Final.

El Proponente deberá coordinar con los proveedores de las utilidades de telecomunicaciones (teléfono, televisión por cable) la localización e identificación de cualquiera de estas facilidades que puedan existir en el área del proyecto. **En cuanto al posible impacto del proyecto, cualquier remoción, modificación y relocalización de las instalaciones de telecomunicaciones existentes, deberá ser coordinada con los proveedores de estos servicios.**

A la fecha de comienzo de las Obras de Construcción, el dueño y/o el contratista solicitarán una reunión de preinspección del proyecto. Una vez complete la construcción del proyecto, y para el endoso final de la obra construida, deberá proceder, conforme a la Sección 5.02.6 sobre Solicitud de Endosos de Obras de Infraestructura Construidas del Reglamento 7393, según se visado. Para solicitar el Permiso de Uso, que emite la OGPE, es un requisito mandatorio cumplir con la Certificación de Obras Construidas (COC), utilizando el Formulario JRTPR F-102, que también lo encontrará en la descrita dirección electrónica.

En el descargue de los deberes delegados, el NET pasará juicio en torno a la veracidad de los hechos que surjan del expediente administrativo. Se notificarán las acciones administrativas que correspondan, de acuerdo con la etapa del proyecto en referencia. Agradeceremos que toda la documentación requerida, tanto para la Aprobación Final como para la Inspección y Endoso de Obras Construidas, sea tramitada a través del Sistema Unificado de Información (SUI) de la OGPE.

Estamos disponibles para contestar sus preguntas. Puede comunicarse, a su conveniencia, al teléfono (787) 756-0804, extensiones 3056 o 3047.

Recomendado por:


Ángel M. Rivas Vázquez
Técnico

Aprobado por:


Ing. José Raúl Colón Ortiz
Administrador

c: Expediente
Secretaría
Proponente

Anejo





GOBIERNO DE PUERTO RICO
Autoridad de Energía Eléctrica de Puerto Rico

EVALUACIÓN DE PROYECTOS

30 de octubre de 2018

Ing. Iliana Garay Oh
Gerente Interina de Edificabilidad y Códigos & Infraestructura
Oficina de Gerencia de Permisos
Departamento de Desarrollo Económico y Comercio
PO Box 41118
San Juan, PR 00940

Estimada ingeniera Garay Oh:

AEE 01-1-027A Carga 440 KVA
ESA Phase I - ASTM E1527-13 - TPS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

Ensueño
Carr. 844 KM. 4.0
Cupey, San Juan

FID 1001630825
OGPe 2018-241750-SRI-020078
ALIMENTADOR 1204-02
COORDENADAS 241602.15, 256818.09
WR 5211090

Nos referimos a su solicitud de información, con la cual nos incluía el plano de situación del proyecto de referencia.

Incluimos planos con información gráfica sobre facilidades eléctricas y la siguiente información:

1. En este sector existen líneas eléctricas trifásicas aéreas a un voltaje de 13.2 y 4.16 KV, 4 conductores, calibre núm. 556 ACSR y 336 Spacer.
2. El voltaje de alimentación de su proyecto será a 13.2KV.
3. El proyecto se conectará a los punto de conexión indicados en el plano (10 y 20) que se incluye. Coordinar detalles y costos de conexión con el Superintendente de Ingeniería de Distribución de San Juan.



4. Para servir este proyecto, la AEE reemplazará el poste de madera existente por un poste de hormigón 45'-H4 en el punto de conexión 10 y poste de hormigón 45'-H4 en el punto 20, con cargos al dueño. Incluir nota al efecto en los planos de diseño. Coordinar detalles y costos de estos trabajos con el Superintendente de Ingeniería de Distribución de San Juan.
5. Este proyecto está afectado por líneas eléctricas. Cualquier trabajo de reubicación de líneas eléctricas energizadas será realizado por la AEE, con cargos al dueño y deberá coordinarse con el Superintendente de Ingeniería de Distribución de San Juan. Además, se prohíbe la realización de cualquier tipo de trabajo en las franjas de servidumbre de paso eléctricas sin la autorización escrita de la AEE. La AEE no aprobará la conexión de proyectos con condiciones de invasión de servidumbre o que no cumplan con los despejos de seguridad requeridos.
6. El dueño del proyecto aportará a la AEE la cantidad de **\$ 4,840.00** para realizar mejoras al sistema eléctrico de esta zona. Esta cantidad deberá ser pagada en cualquiera de nuestras oficinas comerciales con giro postal o cheque certificado quienes lo acreditarán a la cuenta 419.06-CIG. Incluir nota al efecto en los planos de diseño.
7. La aportación y carga están basados en **440 KVA** de carga total propuesta de acuerdo con su solicitud. Deberá realizar el pago con dos meses de anticipación al comienzo del proyecto.
8. El dueño será responsable de extender el alimentador primario soterrado requerido desde el punto de conexión hasta el proyecto y de asegurarse de que el diseño propuesto cumple con el Comunicado Técnico 12-01.
9. Mostrar y respetar las servidumbres de paso de líneas eléctricas existentes que pasen por el proyecto. En caso de instalarse nuevas líneas eléctricas que requieran servidumbre deberá incluir en el plano de diseño la ubicación exacta de las mismas, su ancho y una leyenda que describa las mismas. Además, deberá cumplimentar los documentos de Constitución de Servidumbre para someterlos junto a los planos endosados para estos fines en nuestra División Legal.
10. Para conocer el costo por concepto de los trabajos a ser realizados por la AEE, especificados en este informe, el cliente deberá solicitar el estimado correspondiente al Superintendente de Ingeniería de Distribución de San Juan.

ESA Phase I - ASHM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

11. Planos finales de la unidad y/o carta del dueño del proyecto, cálculos de carga y coordenadas Lambert correspondientes a la ubicación del proyecto, serán requisitos previos a la radicación de los planos. Las coordenadas deberán aparecer impresas en el plano a ser radicado, bajo el esquema de localización (1:20,000).
12. Deberá incluir en los planos de diseño la versión del North American Datum (NAD 27 o NAD 83) y la unidad de medidas (metros o pies).
13. Será responsabilidad del urbanizador indicar la localización exacta y coordinar la reubicación de líneas eléctricas.
14. Esta evaluación del punto de conexión no constituye una revisión al plano de diseño. Corresponde al diseñador someter los planos para el endoso cumpliendo con la reglamentación de la AEE y los reglamentos de ordenación de la infraestructura en el espacio público, según exigido por la Oficina de Gerencia de Permisos.

15. Esta evaluación caduca al año.
ESA Phase I - ASIM E1527-15 - PPS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

Cordialmente,

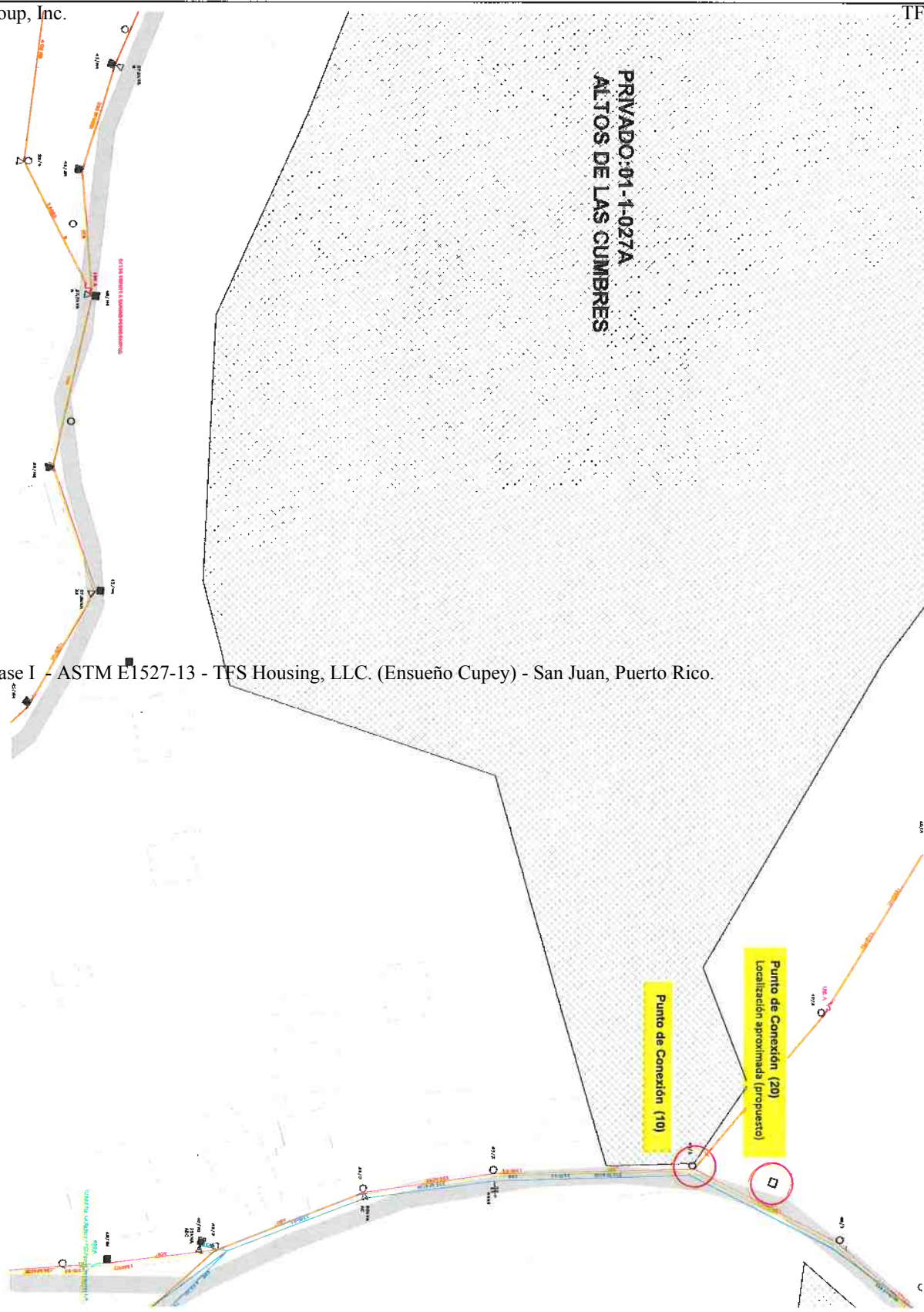


Héctor R. Benero García
Superintendente
Ingeniería de Distribución San Juan

mse

PRIVADO:01-1-027A
ALTOS DE LAS CUMBRES

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.



REGION SAN JUAN
ESTUDIOS Y ESTIMADOS

ABE#: 01-1-027A

ALTOS DE LAS CUMBRES
CARR. PR-844 KM 4.0 BO. QUEBRADA CUPEY, SAN JUAN
FID 1001630825



29 de octubre de 2018

Director Ejecutivo
Oficina de Gerencia de Permisos (OGPe)
P. O. Box 41179
San Juan, P. R. 00940-1179

Estimado Director Ejecutivo:

**AAA-RM-18-65-0060 SAN JUAN- ENSUEÑO—88 UNIDADES DE VIVIENDA EN REMANENTE
(88 UNIDADES EQUIVALENTES)
CARRETERA PR-844 KM 4.0, BO. CUPEY
OGPE: 2018-241750-SRI-020078
(RECOMENDACIONES S)**

Nos referimos al proyecto de epígrafe, sometido ante nuestra consideración para que se informe en cuanto a las facilidades de agua y/o alcantarillado sanitario existentes, que puedan servir al mismo. Dicho proyecto había sido radicado anteriormente por el dueño del proyecto Dorado Ocean Reef, Inc. bajo el número AAA-RM-16-65-0094 (Altos de las Cumbres) y recibido recomendaciones el 8 de febrero de 2018. En esta ocasión el dueño del proyecto se presenta como TSF Housing, LLC. Según el memorial, se propone la construcción de 88 unidades de vivienda de interés social. Por lo anteriormente descrito se han calculado 88 unidades equivalentes.

El cómputo de las unidades equivalentes estará basado en lo que, al presentar los planos hidráulicos, resulte ser la demanda requerida para el proyecto. La Autoridad se reserva el derecho de modificar los términos de ésta evaluación, si el cómputo de estas resulta ser diferente a lo contemplado por estas recomendaciones.

El servicio de agua podrá ser prestado mediante conexión a la línea de 6" de diámetro que discurre por la carretera PR-844. El dueño del proyecto deberá instalar tubería desde el punto de conexión hasta el desarrollo. La misma deberá instalarse en zona de rodaje para facilitar la operación y mantenimiento de la misma. Deberá coordinar con la Autoridad para la realización de una exploratoria en la cual se pueda validar la localización y diámetro exacto de la línea de servicio. Además, será requerida la instalación de una válvula automática tipo combinada (sostenedora/reguladora) igual o similar a la Cla-Val 92-01/692-01 en la línea de entrada. Se recomienda la instalación de una cisterna y su sistema de bombeo con la capacidad de suplir la necesidad de caudal del proyecto. **Resaltamos el hecho de que las presiones en el área son bajas.**

Sera necesario que el desarrollador del proyecto pague a esta Autoridad, la cantidad de \$500 por cada unidad de vivienda o su equivalente adicional a conectarse, por el derecho a hacer uso del sistema de distribución de agua existente.

El servicio de alcantarillado sanitario podrá ser prestado mediante conexión a un registro sanitario aledaño al complejo de vivienda Alturas del Bosque. Toda instalación a construirse deberá instalarse en zona de rodaje para facilitar la operación y mantenimiento de la misma. La conexión de este



proyecto estará condicionada a la realización de trabajos conducentes a aumentar la capacidad de las estaciones de bombeo **Alturas del Bosque y UM49 (Monte Britton)**. Estos trabajos podrían incluir aumento en la capacidad de bombeo, modificaciones a los sistemas de control eléctricos, subestación, foso y línea de fuerza.

Será necesario que el desarrollador del proyecto pague a esta Autoridad, la cantidad de \$500 por cada unidad de vivienda o su equivalente a conectarse, para hacer uso del sistema de alcantarillado sanitario existente.

Antes de iniciar el proceso de construcción, deberán someter para aprobación de esta Autoridad, los planos de las obras de acueducto y/o alcantarillado para los que se solicita permiso, las cuales deberán estar sellados y firmados por el profesional responsable de los mismos.

Además, deberá someter un estimado del caudal necesario para servir el proyecto. En los planos deberá describirse, según aplique al caso:

- Sistemas de distribución de agua y de alcantarillado sanitario y su conexión a los sistemas de la AAA
- Relocalización o extensión de obras de acueductos y alcantarillados
- Obras extramuros e instalaciones para ser transferidas a la AAA para su operación

Deberá cumplirse con los requisitos establecidos en el **Reglamento Conjunto de Permisos para Obras de Construcción y Usos de Terrenos**.

Los planos deberán ser sometidos y aprobados por esta Autoridad, de acuerdo al **Reglamento para la Certificación de Planos de Construcción**, antes de proceder con la construcción de las obras.

Además, al someter el plano final para aprobación, se deberá cumplir, también, con los siguientes requisitos:

1. Someter los documentos de certificación del ingeniero o arquitecto debidamente cumplimentados
 - a. AAA-972 (Solicitud de Aprobación de Planos de Construcción)
 - b. AAA-1294 (Certificación de Ingeniero o Arquitecto)
2. Someter un estimado desglosado y por partida de las obras de acueducto y/o alcantarillado a instalarse en el proyecto.

Resaltamos que, si los planos sometidos no cumplen con los puntos de conexión de agua potable y de alcantarillado sanitario descritos en esta carta, los mismos serán devueltos sin ser evaluados.

De requerir se evalúe alternativa a los puntos de conexión, deberá solicitar una reconsideración para nuestra evaluación y determinación antes de someter planos para aprobación.

Estas recomendaciones estarán vigentes por el término de dos (2) años, a partir de la fecha de esta comunicación, al cabo del cual, de no haberse sometido planos de construcción de las obras de acueducto y alcantarillado sanitario, el proyecto deberá someterse nuevamente ante la consideración de esta Autoridad.

Cordialmente,



Gabriel Morales Rodriguez, P.E.
Gerente Técnico – Región Sede
Proyectos Públicos y Privados

C: Desarrollador, Expediente, Archivo de Lectura



GOBIERNO DE PUERTO RICO
 Autoridad de Carreteras y Transportación

Ref. C#01-00008624

8 de noviembre de 2018

Ing. Rosana Aguilar Zapata
 Secretaria Auxiliar Interina
 Oficina de Gerencia de Permisos
 Apartado 41179
 San Juan, Puerto Rico 00940-1179

CASO NÚM.: 2018-241750-SRI-020078
ENSUEÑO
(ANTES ALTOS DE LAS CUMBRES)
(88 UNIDADES DE VIVIENDA UNIFAMILIARES)

CARRETERA PR-844, KM 4.00

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

BARRIO CUPEY, SAN JUAN

CASO NÚM.: 2016-127875-SRI-011900

Estimada ingeniera Aguilar Zapata:

Hacemos referencia a los documentos recibidos digitalmente el 15 de octubre de 2018, en la Oficina de Control de Accesos de esta Área, relacionados con este asunto.

Las Oficinas de Programación del Área de Programación y Estudios Especiales y de Planificación Estratégica de esta Autoridad evaluaron el plano de localización de la propiedad en donde se propone el proyecto mencionado en el asunto e informaron que, según la ubicación indicada en dicho plano, el proyecto de referencia no se afecta por vías propuestas incluidas en el Programa de Construcción de Mejoras Permanentes de Cinco Años, vigente, de esta Autoridad y en el Plan de Transportación, vigente, respectivamente.

No obstante, esta Autoridad revisó los documentos radicados en el SBP del caso mencionado en el asunto e informó que, en nuestra comunicación del 26 de enero de 2017 se indicó que para continuar con la evaluación del proyecto propuesto se debía presentar la evidencia del cumplimiento con el pago por concepto de exacción por impacto para el proyecto "Alturas del Bosque", según fuera requerido al desarrollador por esta Autoridad en nuestra carta de endoso del 17 de enero de 2007, ya que según indicado en la comunicación del Área de Finanzas de esta Autoridad del 18 de febrero de 2014, de las 540 unidades residenciales propuestas se han construido 220 unidades (Fase I y II) y solamente se han pagado por 85 unidades, quedando el balance pendiente de exacción por impacto de \$135,000.00. Por lo tanto, debido a que no se sometió dicha evidencia, **no endosamos el proyecto propuesto.**



Ing. Rosana Aguilar Zapata
 Caso Núm.: 2018-241750-SRI-020078
 8 de noviembre de 2018
 Página 2

Una vez se someta la evidencia requerida, se estará continuando con la evaluación de dicho proyecto.

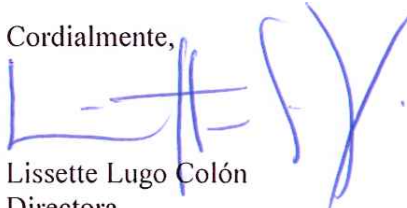
Por lo antes expuesto, solicitamos que ni dicha Oficina de Gerencia de Permisos ni la Oficina de Permisos del Municipio Autónomo de San Juan otorguen el permiso de construcción correspondiente a dicho proyecto, hasta que el proponente cumpla con el pago correspondiente y esta Autoridad endose el proyecto propuesto.

Una vez realizado el pago correspondiente de \$135,000.00, el proponente deberá someter a la Oficina de Gerencia de Permisos la evidencia de pago y los planos del proyecto en formato digital protegido (PDF) y en formato (DXF) georeferenciado con las coordenadas NAD 83, de acuerdo a nuestros comentarios y requisitos, y ésta deberá consultar a la Oficina de Control de Accesos de esta Área para la evaluación correspondiente. Los documentos y planos requeridos deberán estar firmados y sellados por un profesional colegiado autorizado y deberán cumplir con los requisitos de presentación de esta Autoridad.

Esta comunicación tiene un año de vigencia, no constituye un endoso ni una autorización para comenzar obra de construcción alguna en el proyecto, por lo que se deberán cumplir con los requisitos indicados en la misma y aplica al proyecto "Ensueño (antes Altos de las Cumbres)", de 88 unidades de vivienda unifamiliares, propuesto en el predio de terreno de referencia. Cualquier otro proyecto a desarrollarse en este predio de terreno, deberá ser sometido a la Oficina de Gerencia de Permisos para la evaluación y comentarios que apliquen.

Para cualquier aclaración o información adicional relacionada con este asunto, puede comunicarse con la División de Asesoramiento al Proponente de la Oficina de Control de Accesos de esta Área al 787-721-8787, extensión 2805, haciendo referencia al número de control de esta carta. Las llamadas y visitas serán atendidas los días laborables de 8:30 a 11:00 de la mañana y de 1:00 a 2:30 de la tarde.

Cordialmente,



Lissette Lugo Colón
 Directora
 Área de Ingeniería de Tránsito y Operaciones

5005-JRZH-GAG-grh
 Ref. C#01-00008624

C: Oficina de Permisos
 Municipio Autónomo de San Juan
 PO Box 4355
 San Juan, PR 00901-4355



GOBIERNO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

FEB 13 2017

ING IAN CARLO SERNA
DIRECTOR EJECUTIVO
OFICINA DE GERENCIA DE PERMISOS
PO BOX 41179
SAN JUAN, PR 00940-1179

Atención: Gerente de Medio Ambiente

Estimado ingeniero Carlo:

Altos de las Cumbres
PR-844 km 4.0

ESA Phase I - ASTM E1527-13, TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.
Bo. Cupey, San Juan

2016-127875-SRM-010406
O-NE-EAR08-SJ-00761-28122016

E-CO-OTR11-SJ-00056-09022009
A-CO-OTR11-SJ-00133-17072007
C-697-671

El Departamento de Recursos Naturales y Ambientales (DRNA) recibió por medio electrónico, el proyecto identificado en el epígrafe. Se propone la construcción de 88 unidades de vivienda unifamiliares en un predio con cabida de 22.43 cuerdas. Según se informa el proyecto será realizado hasta donde la topografía del terreno lo permita, por lo que pudieran construirse menos unidades. El desarrollo está propuesto en el remanente del predio donde se han construido dos condominios, Alturas del Bosque con 170 unidades multifamiliares y Alturas del Bosque II con 30 unidades multifamiliares.

Según nuestros expedientes, el DRNA evaluó y endosó en comunicación del 17 de junio de 2009 un proyecto propuesto para esta área. El predio consiste de dos lomas con topografía escarpada hacia el nacimiento de la Quebrada Los Guanos. El tope de las dos lomas ha sido previamente impactado por los desarrollos previamente propuestos en el área. No obstante, los taludes o laderas asociadas a la Quebrada Los Guanos cuenta con vegetación ribereña densa. Estos taludes existentes forman parte de la cuenca y nacimiento de dicha quebrada, importante tributario del Río Piedras. Asimismo, la Ley Núm. 1 de 24 de enero de 2007, *Ley para enmendar los artículos 1 y 7 de la Ley Núm. 206 de 2003: Ley del Corredor Ecológico de San Juan*, designó como parte del *Arboretum* de San Juan, entre otros, los márgenes de la Quebrada Los Guanos para conservación.

M.S.



Ing. Ian Carlo Serena
 O-NE-EAR08-SJ-00761-28122016
 Altos de las Cumbres
 Bo. Cupey, San Juan
 Página 2 de 3

El DRNA reconoce que previamente se aprobaron proyectos para este predio y que los topes de las colinas fueron impactados. El DRNA no tiene objeción al desarrollo propuesto, siempre y cuando el mismo sea realizado en las áreas previamente impactadas del predio y se garantice la conservación de las áreas boscosas asociadas a la Quebrada Los Guanos. Además, se deberá cumplir con lo siguiente:

- Deberá mantener un retiro de diez (10) metros mínimos de ancho medidos desde el borde del cauce y humedal asociado a la Quebrada Los Guanos que colinda con el predio. Esto, según requerido por el Plan de Ordenamiento Territorial del Municipio Autónomo de San Juan. Dicha faja se mantendrá expedita y no podrá ser utilizada para usos distintos al propósito de conservación del cuerpo de agua. Además, deberá dedicarse a favor del Municipio Autónomo de San Juan conforme al Artículo 2 de la Ley Núm. 49 de 4 de enero de 2003, según enmendada por la Ley Núm. 55 de 22 de enero de 2004. Entiéndase que la faja del cuerpo de agua deberá segregarse como lote independiente y que la misma será cedida al Municipio Autónomo de San Juan, lo cual debe estar reflejado en el plano del proyecto.
- El proyecto no deberá impactar el cauce mayor ni la vegetación ribereña asociada a la Quebrada Los Guanos.

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC (Ensueño Cupey) - San Juan, Puerto Rico.

- El proyecto propone el relleno y la creación de taludes debido a la topografía del predio. Se percibe que se deberá diseñar el proyecto de forma tal que la base de los taludes descansa fuera de la faja verde de la quebrada y del área de la ladera con vegetación ribereña asociada al cuerpo de agua. Estas áreas deben mantenerse en su estado natural. Además, se deberán establecer medidas para garantizar la estabilidad de los taludes y la protección de los mismos contra la erosión.
- Deberá cumplir con las disposiciones aplicables del Reglamento del Plan de Ordenación Territorial del Municipio Autónomo de San Juan y del Reglamento Conjunto de Permisos para Obras de Construcción y Usos de Terrenos, adoptado por la Junta de Planificación (JP) mediante la Primera Extensión a la Resolución JP-RP-31, del 29 de octubre de 2010.
- Deberá cumplir con las disposiciones del Tópico 4 (Mejoras de Lotificaciones), Sección 14.00 (Manejo de Aguas Pluviales), del Reglamento de Planificación Núm. 34, conocido como el Reglamento de Lotificación y Urbanización (Reglamento Núm. 8695 del 27 de enero de 2016), en lo relacionado con el manejo de aguas pluviales y control de escorrentías del predio.
- Se deberá establecer un programa de reforestación utilizando especies nativas que además de ayudar a minimizar la erosión beneficien la vida silvestre. Esta medida es cónsona con la Ley para Fomentar la Siembra de Árboles Cuyas Frutas y/o Semillas Provean Alimento a Especies de Aves Silvestres de Puerto Rico (Ley Núm. 97 de 24 de junio de 1998), la cual establece lo siguiente: "En todo proyecto de reforestación en que se utilicen fondos públicos o privados, o en una combinación de estos, un 15% en las áreas rurales y un 10% en las áreas urbanas del total de árboles a ser sembrados, serán de especies cuyas frutas y/o semillas sirvan de alimento a las aves silvestres que residan temporal o permanentemente en ésta".

M.J.A.

Ing. Ian Carlo Serena
O-NE-EAR08-SJ-00761-28122016
Altos de las Cumbres
Bo. Cupey, San Juan
Página 3 de 3

- De descubrirse en el predio objeto de desarrollo algún cuerpo de agua superficial o subterráneo, sea perenne o intermitente, deberá informarlo inmediatamente al DRNA y demás agencias concernidas. No informar hallazgos de este tipo, así como las medidas de mitigación que se implantarán para proteger estos recursos naturales conllevará una revocación automática de la presente comunicación de no objeción y podrá ser base para acciones legales por parte del DRNA en los foros disponibles.

Este endoso es solamente aplicable a la situación de hechos y los datos según presentados y evaluados en el caso y la Secretaria se reserva el derecho de reevaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o la acción administrativa correspondiente por parte de la agencia solicitante o proponente cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando el endoso original se emitió bajo premisas falsas o fraudulentas.

Cordialmente,

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Ensueño Cupey) - San Juan, Puerto Rico.

Moises Sánchez López
Secretario Auxiliar
Secretaría Auxiliar de Permisos,
Endosos y Servicios Especializados

MSL/GFS/ACH



Recomendaciones

Ensueño

Datos de Localización

De acuerdo a la información suministrada se propone una actividad: Privada en:

Dirección Física

CARR 844 KM 4.0 BO CUPEY BAJO
San Juan Puerto Rico, 00926

Número(s) de Catastro

115-084-398-86

Dueño

TSF Housing, LLC

Calificación

Distrito(s) de Calificación: B-1 (91%), SRP (8%), DT-G

Distrito en el Mapa de Inundabilidad: X

Tipo de Suelo: MxE (99.5%), JuD (0.5%)

Cabida

Cabida según escritura: 24279.94 metros cuadrados

Medioambiente

Se presenta ante la Oficina de Gerencia de Permisos (OGPe) la Solicitud de Recomendación Medioambiente (SRM) 2018-229494-SRM-020167 para la actualización de las recomendaciones de la División de Medioambiente para el proyecto Ensueños (Antes Altos de las Cumbre ubicado en el Bo. Cupey, con acceso a través de la Carr. 844, Km. 4.0 del municipio de San Juan. A esos efectos, la División de Medioambiente de la OGPe se reafirma en las condiciones establecida en la carta del 13 de febrero de 2017 expedida por el Departamento de Recursos Naturales y Ambientales.

ADS:

12 de octubre de 2018 ADS-Medioambiente Re: Proyecto Residencial Ensueño SUPERSIP-2018-241750-SRM-020071 Municipio de San Juan La Autoridad de Desperdicios Sólidos (ADS) y la División de Medioambiente de la Oficina de Gerencia de Permisos (OGPe) recibieron el proyecto de referencia. El mismo consiste de la construcción de un proyecto residencial que consiste en 88 unidades de vivienda unifamiliares. Estará localizado en la PR-844 km 4.0, Barrio Cupey, Municipio de San Juan. Luego de revisar la información suministrada, la ADS no objeta la acción propuesta, ya que la misma no tiene aspectos contrarios a la política pública de la Agencia. Sin embargo, el proponente cumplirá con las siguientes leyes y reglamentos relacionados con el manejo y disposición de los residuos sólidos y materiales reciclables: 1. Ley Núm. 70, de 18 de septiembre de 1992, Ley para la Reducción y Reciclaje de los Desperdicios Sólidos, según enmendada, establece el desarrollo e implantación de estrategias económicamente viables y ambientalmente seguras que resulten en la disminución del volumen de desperdicios sólidos que requerirá disposición final. Como parte de estas estrategias, se considera necesario modificar las prácticas de manejo y disposición existentes para reducir la intensidad de uso de los Sistemas de Relleno Sanitario (SRS) del país. 2. Reglamento para la Reducción, Reutilización y Reciclaje de Desperdicios Sólidos (Reglamento Núm. 6825 de 15 de junio de 2004), según enmendado. Aplicará a toda persona, natural o jurídica, ya sea municipios, cooperativas, industrias, comunidades, condominios, complejos de vivienda vertical tipo "walk-up", residenciales público, agencias gubernamentales, empresas o instituciones privadas (comercios y organizaciones sin fines de lucro) y empresas comunitarias que generen o manejen desperdicios sólidos, que contengan material reciclable, dentro de la jurisdicción del Estado Libre Asociado de Puerto Rico. 3. Ley Núm. 136 de 25 de julio de 2000, según enmendada, establece que: toda obra que comience a partir de 1 de julio de 2001, se utilicen reductores de velocidad fabricados con materiales reciclados manufacturados en Puerto Rico. (aplica área de estacionamiento). 4. Reglamento Conjunto de Permisos para Obras de Construcción y Usos de Terrenos (Reglamento Conjunto de 29 de noviembre de 2010), según enmendado. El proponente cumplirá con la información requerida, según lo dispuesto en: a. Capítulo 9, Procedimientos Adjudicativos: de los Permisos. Regla 9.3 Permiso de construcción. Sección 9.3.2. (e) Plan de Reciclaje. b. Capítulo 47 Corte, Poda y Forestación Regla 47.1 Disposiciones Generales. Sección 47.1.3 (c) En el caso de corte y poda, se deberá presentar alternativas para el manejo y disposición del material vegetativo generado, conforme al Capítulo IX del Reglamento para la Reducción, Reutilización y Reciclaje de Desperdicios Sólidos, según enmendado (Reglamento 7940 de 2 de noviembre de 2010). c. Capítulo 49,





Recomendaciones

Ensueño

Desperdicios Sólidos Regla 49.1 Disposición General: Sección 49.1.1 Disposición de Desperdicios Sólidos No Reciclables. a. Los recipientes comunes para disponer de los desperdicios no reciclables se colocarán en los patios posteriores o laterales de los edificios. Se construirán verjas que los disimulen a la vista desde la calle o en propiedades colindantes. Sección 49.1.2 Recuperación de Materiales Reciclables en Complejos de Viviendas. Sección 49.1.6 Recipientes/Contenedores/Receptáculos en los CRMR. Presentar evidencia de aprobación de la ADS del Plan de Reducción, Reutilización y Reciclaje y el Informe Trimestral de Reciclaje de los materiales generados durante la etapa de construcción. Para obtener el formulario puede acceder nuestra página electrónica <http://www.ads.pr.gov> Este se completará y entregará a la Oficina de la ADS o vía correo electrónico construcción@ads.pr.gov. El desarrollador será responsable de notificar al contratista del proyecto el cumplimiento de esta Ley. Esta regla aplicará igualmente a la fase de operación del proyecto. La aprobación del Plan para la fase de construcción, es requisito para otorgar el Permiso de Construcción, otorgado por la Oficina de Gerencia de Permisos (OGPE). Los siguientes aspectos serán incorporados en el proyecto: 1. Notificar al Coordinador de Reciclaje Municipal sobre las áreas designadas para la recuperación y disposición de los materiales reciclables. Si el municipio tiene recogido de materiales reciclables en el área, deberá incluir el mismo. 2. Indicar el responsable del recogido y disposición de los desperdicios sólidos (privado o municipal). 3. En las de estacionamiento utilizar "wheel stop" fabricadas con neumáticos desechados. 4. Implantar técnicas de prevención de contaminación: • Utilizar productos sin materiales tóxicos. • Emplear materiales reusables o reciclables. • Mantener los contaminantes segregados. • Conservar el agua y los recursos energéticos. • Rotular recipientes y contenedores, apropiadamente, para lo que estén designados. Las recomendaciones emitidas aplican a los hechos presentados y evaluados al momento. La ADS y OGPe se reservan el derecho de reevaluar y modificar los mismos en el caso de surgir información oficial que identifique que las condiciones han cambiado, o cuando los comentarios hayan sido emitidos bajo premisas falsas. Además, la ADS tiene la facultad de solicitar cualquier información adicional que entienda pertinente y que de conformidad con las leyes y reglamentaciones vigentes, garantice el interés público y la protección del ambiente.

Condiciones Especiales

NINGUNA

Condiciones Generales

Esta recomendación es solamente aplicable a la situación de hechos y los datos según presentados y evaluados en el caso. La OGPe se reserva el derecho de reevaluar, variar o modificar el mismo en cualquier momento anterior a la emisión del permiso o la acción administrativa correspondiente por parte de la agencia solicitante o proponente cuando surja nueva información oficial específica estableciendo que el derecho aplicable o las condiciones ambientales en el predio han cambiado sustancialmente, o cuando la recomendación original se emitió bajo premisas falsas o fraudulentas.

Las vigencias de las diferentes agencias del proceso de recomendación serán las establecidas en los comunicados que estas emiten conforme a sus reglamentos.

Firma / Sellos

Fecha de Expedición:

14/OCT/2018



Ing. Héctor Rodríguez Echevarría





Recomendaciones

Ensueño

Secretario Auxiliar Interino de la OGPe, DDEC



THE ENGINEERING GROUP

PROYECTO: SEGREGACION DE PARCELAS PARA EL DESARROLLO DE UN COMPLEJO RESIDENCIAL EN LA ZONA DE SAN JUAN, P.R.

PROYECTO: SEGREGACION DE PARCELAS PARA EL DESARROLLO DE UN COMPLEJO RESIDENCIAL EN LA ZONA DE SAN JUAN, P.R.

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PROYECTO: SEGREGACION DE PARCELAS PARA EL DESARROLLO DE UN COMPLEJO RESIDENCIAL EN LA ZONA DE SAN JUAN, P.R.

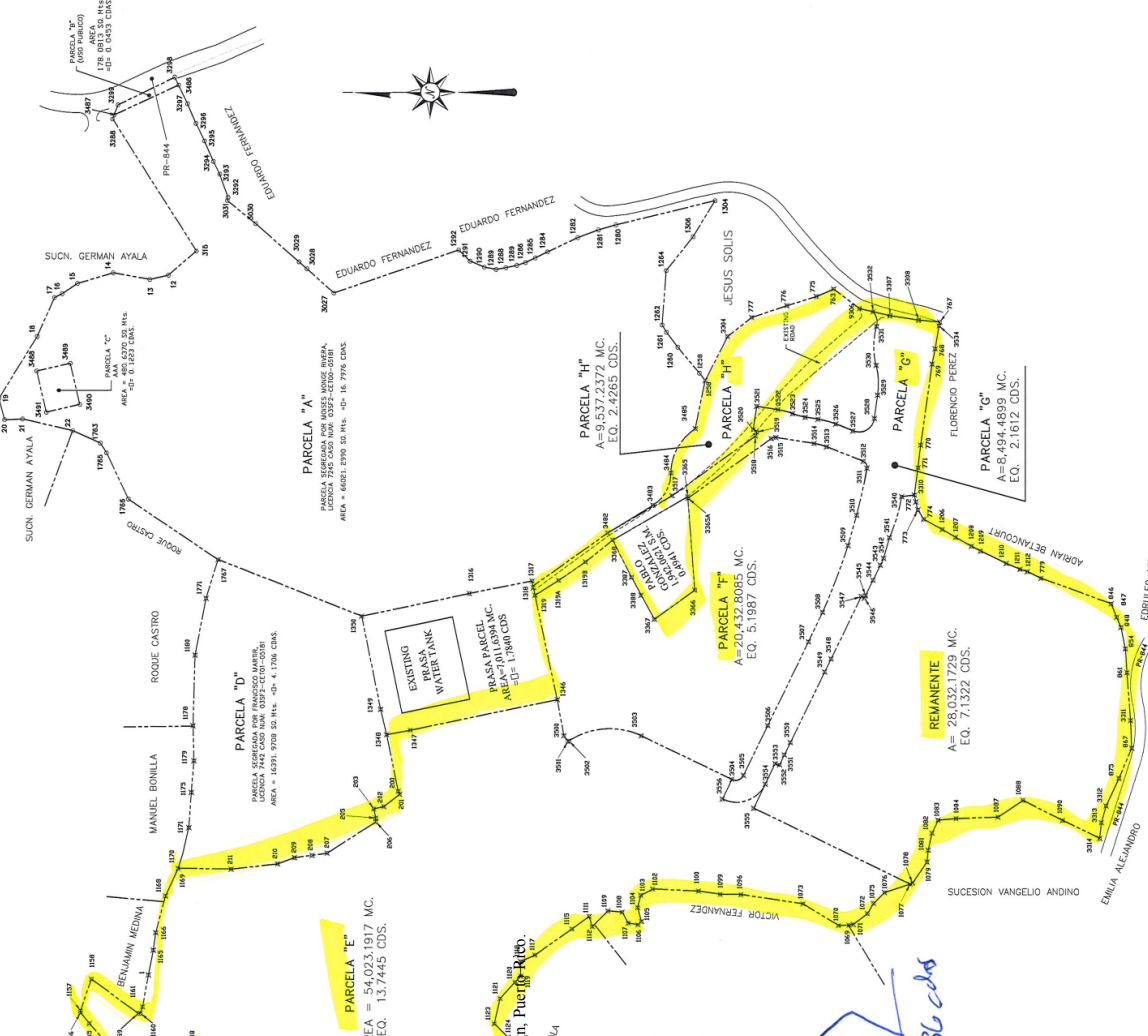
PROYECTO: SEGREGACION DE PARCELAS PARA EL DESARROLLO DE UN COMPLEJO RESIDENCIAL EN LA ZONA DE SAN JUAN, P.R.

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PROYECTO: SEGREGACION DE PARCELAS PARA EL DESARROLLO DE UN COMPLEJO RESIDENCIAL EN LA ZONA DE SAN JUAN, P.R.



RESUMEN DE AREAS		
METROS CUAD.	CUBEDAS	
7,011,730	1,760	POTABLE WATER TANK - AAA
1,942,062	0,494	PROPIEDAD DE PABLO GONZALEZ
66,021,299	16,976	PARCELA A - COND. ALTURAS DEL BOSQUE
178,081	0,045	PARCELA B - USO PUBLICO
488,637	0,123	PARCELA C - AAA SANITARIO (RESERVA DE LA PARCELA A)
16,301,978	4,176	PARCELA D - COND. ALTURAS DEL BOSQUE II
54,023,192	13,460	PARCELA E - A SEGREGAR
20,412,808	5,189	PARCELA F - A SEGREGAR
8,494,489	2,161	PARCELA G - A SEGREGAR
9,537,237	2,428	PARCELA H - A SEGREGAR
28,032,173	7,132	REMANENTE

30,663.36 cda

SEGREGACION DE PARCELAS PARCELA E, F, G, H Y REMANENTE

ESCALA: 1:200

ESA Phase I - ASTM E1527-13 - TFS Housing, LLC (Ensueño Cupey) - San Juan, Puerto Rico.

Appendix VI
Reliance Letter
Evidence of Insurance



November 25, 2021

TFS Housing, LLC.

**RE: Ensueño Cupey (the “Project”)
 Road PR-844, Km. 4, Cupey Ward
 San Juan, Puerto Rico**

Ladies and Gentlemen:

CTS Group, Inc. (“Consultant”) agrees and acknowledges that Puerto Rico Housing Authority, TFS Housing, LLC. and each of their respective successors and assigns (the “Relying Entities”) are authorized by Consultant to rely without limitation on the information, recommendations, and other contents of the following environmental reports, which was prepared by Consultant in connection with the Project:

- ASTM E 1527-13 Environmental Site Assessment Phase I dated November 25, 2021

The Phase I Environmental Site Assessment Reports were prepared in accordance with ASTM E 1527-13 as authorized by EPA’s All Appropriate Inquiries Final Rule. Consultant also agrees and acknowledges that the entities set forth above are authorized to rely on all other environmental reports, studies, letters, data, information, or recommendations prepared by Consultant in connection with the Project.

Consultant acknowledges that it maintains a Pollution Incident Liability and Professional Liability insurance with limits of at least \$1,000,000 per occurrence. Consultant agrees and acknowledges that it shall not limit its liability in an amount less than said insurance coverage to the Relying Entities, notwithstanding any limitations on liability set forth in the Phase I Reports or any other environmental reports, studies, letters, data, information, or recommendations, or any terms and conditions agreed to as part of preparation of the referenced documents.

Very truly yours,

Ihosvany Negret Lapera

 CTS Group, Inc.
 By: Ihosvany Negret Lapera, MS, ME Eng
 Its: Environmental Professional

 A circular blue professional seal for Ihosvany Negret Lapera. The outer ring contains the text "CTS GROUP, INC." at the top and "Engineers & Environmental Consultants" at the bottom. The inner circle contains the text "Ihosvany Negret Lapera, PE", the number "182650", and the year "2006".

PRODUCER EASTERN AMERICA INSURANCE AGENCY
P.O. BOX 193900
SAN JUAN, PR 00919-3900

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED CTS GROUP, INC.
400 CALLE CALAF, SUITE 235
SAN JUAN, PR 00918

INSURER A: CONTINENTAL CASUALTY COMPANY
INSURER B:
INSURER C:
INSURER D:
INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR _____ GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ FIRE DAMAGE (Any one fire) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Each accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
	EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS LIABILITY				W C STATUTORY LIMITS OTHER \$ E.L. EACH ACCIDENT \$ E.L. DISEASE-EA EMPLOYEE \$ E.L. DISEASE-POLICY LIMIT \$
A	OTHER ARCHITECTS ENGINEERS & CONSULTANTS	EEH591922807	09/07/2021	09/07/2022	LIMITS OF LIABILITY \$1,000,000 PER CLAIM \$1,000,000 AGGREGATE \$1,000 DEDUCTIBLE

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS
LIMITED TO PROFESSIONAL SERVICES RENDERED

CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER:	CANCELLATION
TO WHOM IT MAY CONCERN		SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
FILE # H89079	CERT # 14	AUTHORIZED REPRESENTATIVE EASTERN AMERICA INSURANCE AGENCY, INC.

IMPORTANT
If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).
 USA Phase I - ASTM E1527-13 - TFS Housing, LLC. (Enseño Cayey) - San Juan, Puerto Rico. 209
 This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.
ACORD 25-S (11/03)


Exhibit E

ENSUEÑO



For map revision history prior to Commonwealth of Puerto Rico and mapping, refer to the Community Map History table located in the Flood by report for this jurisdiction.

If flood insurance is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE
1:10,000

0	0.25	0.5					
Kilometers							
0	500	1,000	1,500	2,000	2,500	3,000	3,500
Feet							
0	0.125	0.25					
Miles							

NFIP PANEL 0735J

FIRM
FLOOD INSURANCE RATE MAP
COMMONWEALTH OF PUERTO RICO AND MUNICIPALITIES

PANEL 735 OF 2160
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PUERTO RICO	72000	0735	J

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
72000C0735J

MAP REVISED
NOVEMBER 18, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Exhibit F



lopez**engineering**group

October 27, 2020

TO: Puerto Rico Housing Finance Authority
P.O. Box 71361
San Juan, Puerto Rico 00936-8461

RE: Non-H/H Study requirement Certification
Project Name: **Ensueño, Cupey, PR**

Dear Evaluation Committee:

As the civil Engineer for Ensueño, project located at state road PR-844 km. 4.0 at Cupey Ward PR, I certify that a Hydrologic Hydraulic Study was not required. The NFPI map (FEMA Map) 72000C0735J effective May 12, 2018 locates the Project in zone X a non-flood zone and outside the flood levels of the FEMA regulatory maps. Project elevations fluctuate between 120@150 and there is no risk of floods.

Respectfully,



Fecha de Expiración: 2021-10-07

Digitally signed
by Roberto
Lopez Rosario
Date: 2020.10.27
11:14:20 -04'00'

Roberto Lopez Rosario PE
Lic.11811

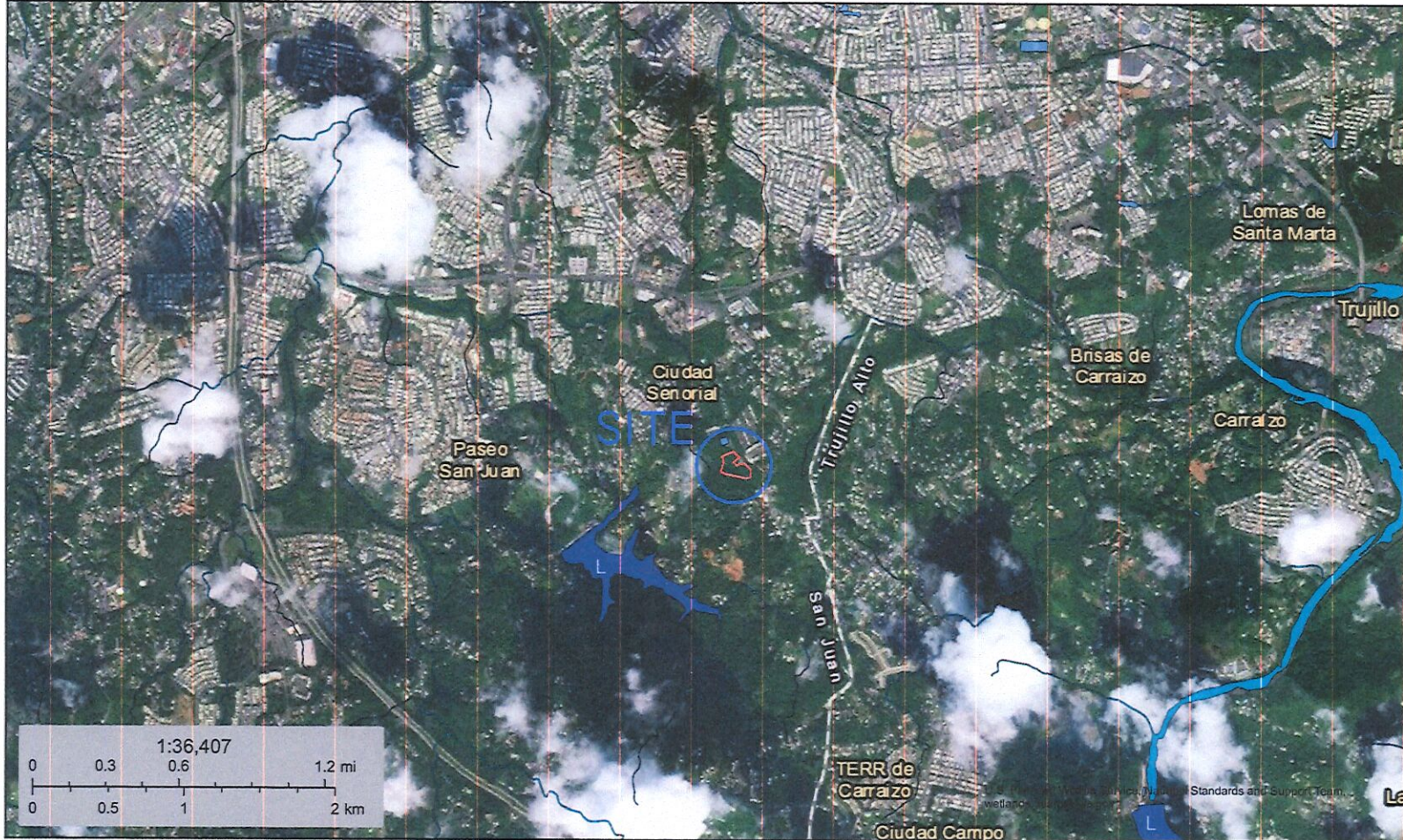
Exhibit G



U.S. Fish and Wildlife Service









National Wetlands Inventory

ENSUEÑO



February 13, 2019

Wetlands

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Exhibit H1

Coastal Zone Map

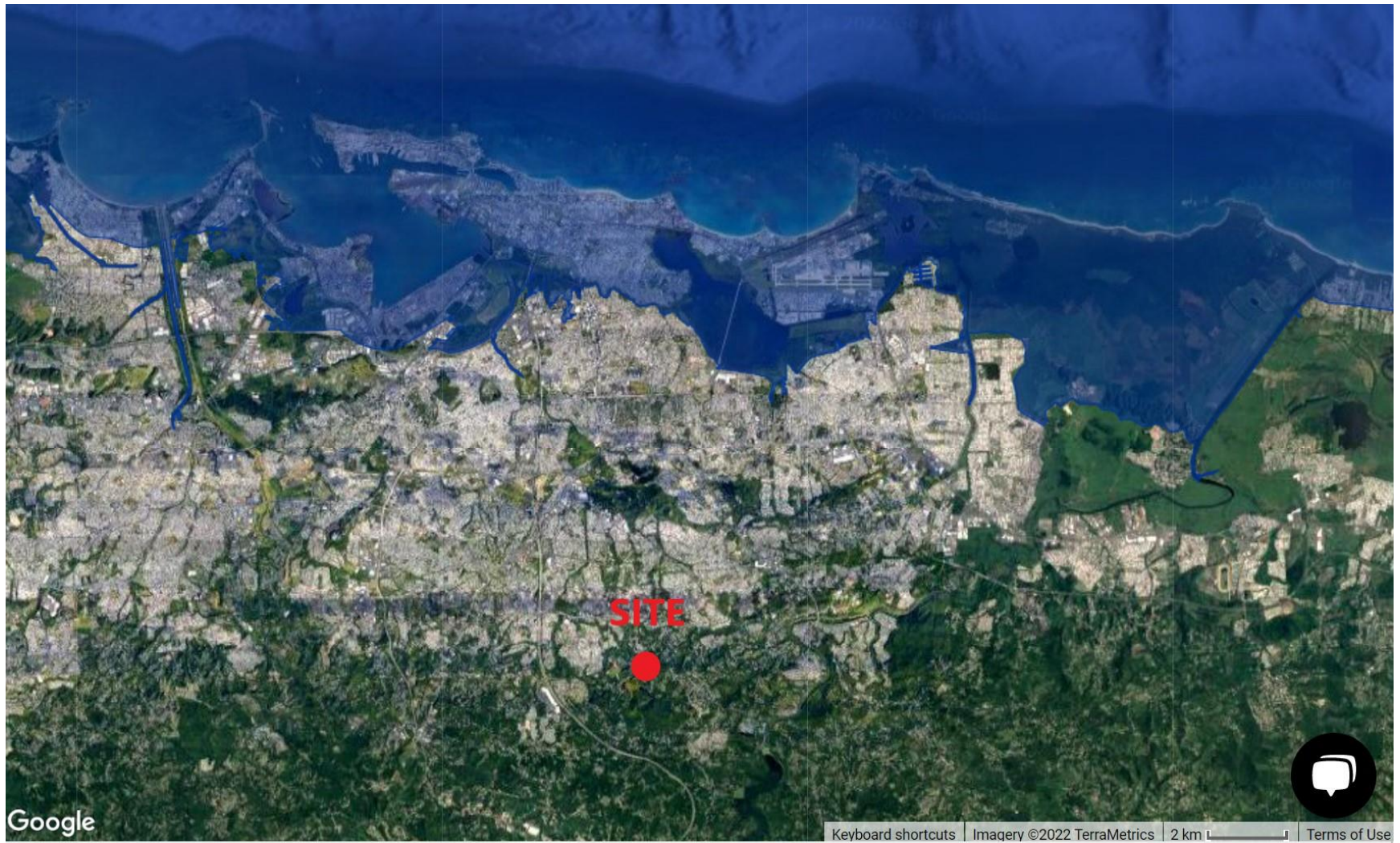


Exhibit H2



February 4, 2022

CBRS Units

- Otherwise Protected Area
- System Unit

This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/cbra/maps/index.html>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

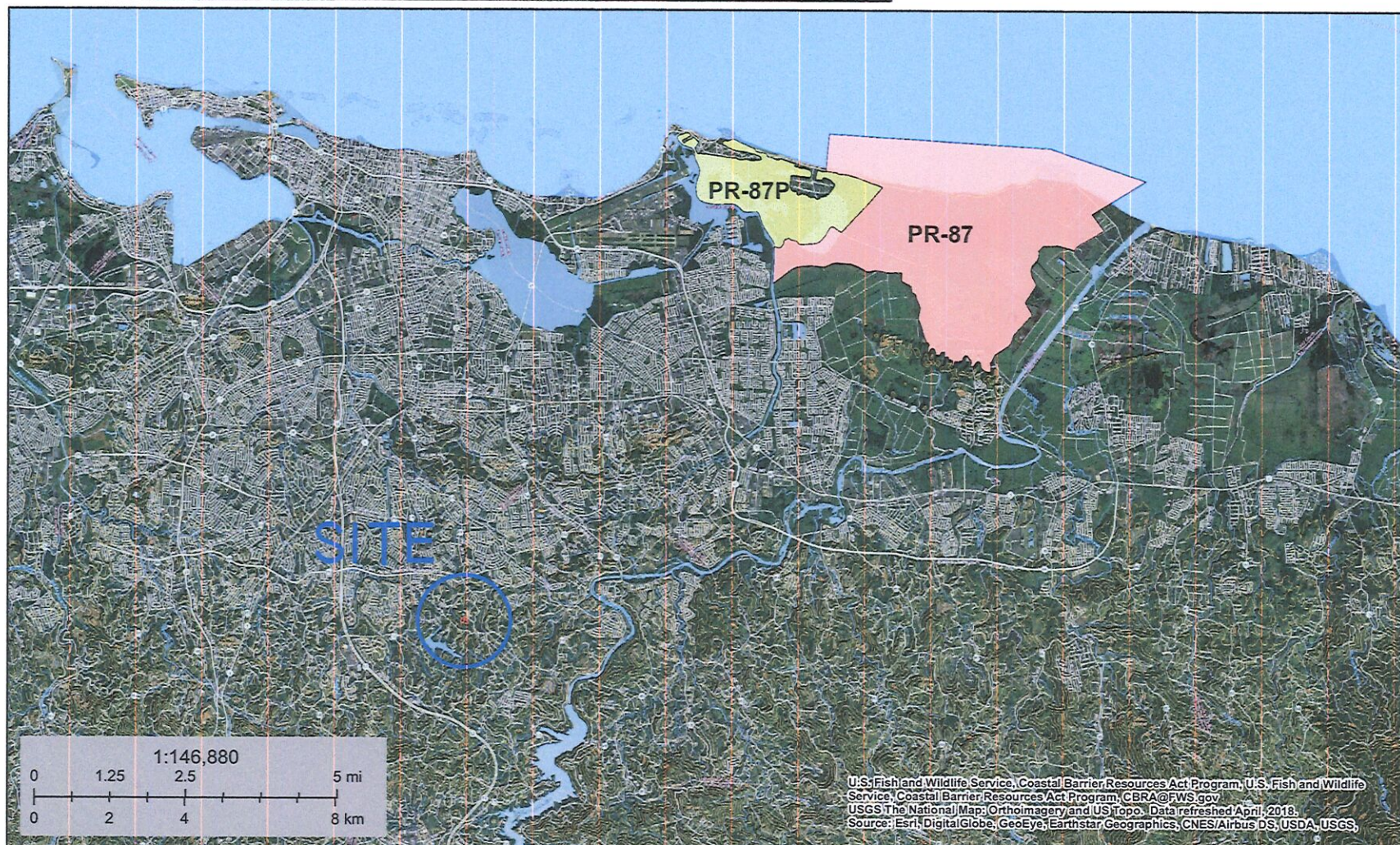
The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<http://www.fws.gov/cbra/Determinations.html>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS mapper.



U.S. Fish and Wildlife Service
Coastal Barrier Resources System

Ensueño



February 13, 2019

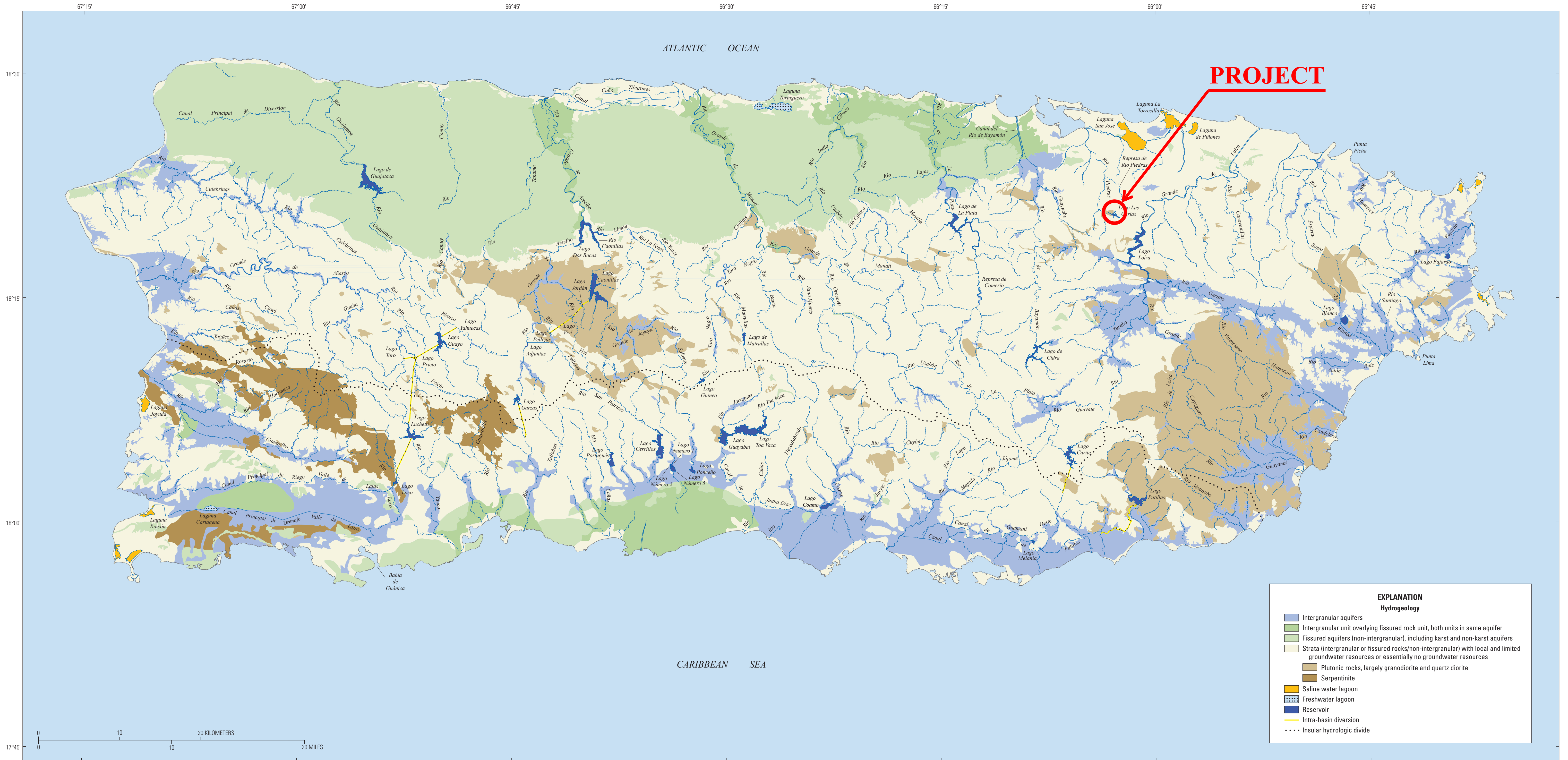
This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/cb-a/maps/index.html>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<http://www.fws.gov/cbra/Determinations.html>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS mapper.

This page was produced by the CBRS Mapper

Exhibit I



Modified from Briggs Hydrogeologic map by Fernando Gómez-Gómez
 Lambert conformal conic projection, Puerto Rico Datum
 Map scale 1:240,000

Hydrogeologic Map of the Island of Puerto Rico

By
 Fernando Gómez-Gómez, Jesús Rodríguez-Martínez, and Marilyn Santiago
 2014



Laguna La Torrecilla

Laguna San José

Laguna de Piñones

Represa de Río Piedras

Río Piedras

PROJECT

Lago Las Curias

Río Grande

Río Loiza

de

Río

Canovanas

Lago Loiza

Río

Río

Gurabo

Río

de

de Baya

Río Guaynabo

Exhibit J



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
PO Box 491
Boquerón, PR 00622



In Reply Refer to:
FWS/R4/CESFO/72127-099

Mr. Carlos González
TSF Housing, LLC
#442 Cesar González St
San Juan, PR 00918

Re: Ensueño Residential Project,
Cupey, Puerto Rico

Dear Mr. Carlos González:

Thank you for your letter of October 21, 2020, requesting comments on the proposed project. As per your request, our comments are provided under the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The project consists of the development 89 single-family units at Road PR-844, Km. 4, Cupey Ward, San Juan, Puerto Rico.

Based on review of the information provided, information obtained from the U.S. Fish and Wildlife Service Geospatial Data, the proposed project site lies within the range of the Puerto Rican boa (*Chilabothrus inornatus*, originally listed as *Epicrates inornatus*). The applicant is proposing to implement Best Management Practices (BMP's) and conservation measures previously provided by the Service. Both conservation mechanisms provide for capture and relocation of PR boas when they are on risk of being harm. However, after consultation with our Regional Office, we are required to exempt the take resulting from the capture and relocation of these species through a Biological Opinion as part of the formal consultation under Section 7 of the Act. We are currently working on a Biological Opinion to address this situation.

Therefore, for the time being, if a Puerto Rican boa is found at the project site, in or on any compartment of the machinery used in the project, or inside debris piles, work activities shall stop until boas move away on their own. If boas need to be moved out of harm's way, the Applicant must contact the State Agency biologists or Rangers for the appropriate capture and relocation of the animal (Puerto Rico DNER: 787-724-5700, 787-230-5550, 787-771-1124. We

have updated the previously provided conservation measures to reflect this change, which are enclosed to this letter.

Based on the above, we concur with your determination that this project is not likely to adversely affect the Puerto Rican boa. No adverse impacts to designated critical habitats are anticipated. In view of this, we believe that requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner that was not previously considered; (2) this action is subsequently modified in a manner not previously considered in this assessment; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

Concerning other project impacts, site map shows a creek along lots 34 and 35 of the project. Any impacts from fill or construction activities to this creek would require a US Army Corps of Engineers' permit. In order to avoid future impacts to the creek, we recommend that these two lots be maintained with vegetation and integrated into the project as an area dedicated to public use and not residential. We recommend that the toe of the construction fill maintain a distance of at least 10 meters from the top of bank of the creek to allow for natural channel migration and minimize any future need for bank stabilization due to encroachment on the development.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact Marelisa Rivera at marelisa_rivera@fws.gov.

Sincerely yours,

**EDWIN
MUNIZ**

Edwin E. Muñiz
Field Supervisor

Digitally signed by EDWIN
MUNIZ
Date: 2020.12.18
19:17:43 -0400

jmrc



May 17, 2021

**Puerto Rico Housing Financial Authority
1903 ave. Jesus T. Piñeiro
San Juan PR 00920**

RE: Ensueño Development-Cupey, San Juan

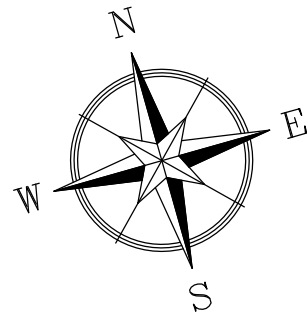
Dear PRHFA Officials:

This letter is to confirm that our company will comply with all the requirements established by Fish & Wildlife Service in the letter dated 12-16-2020. This includes complying with the procedure established to protect the Puerto Rican boa. Besides, the creek would not be impacted because of the development. Finally, a redistribution of the lots was made to remove lots 34 and 35 as recommended by the FWS.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Carlos', is written over the printed name.

Carlos O. Gonzalez Sanchez
Vice-president

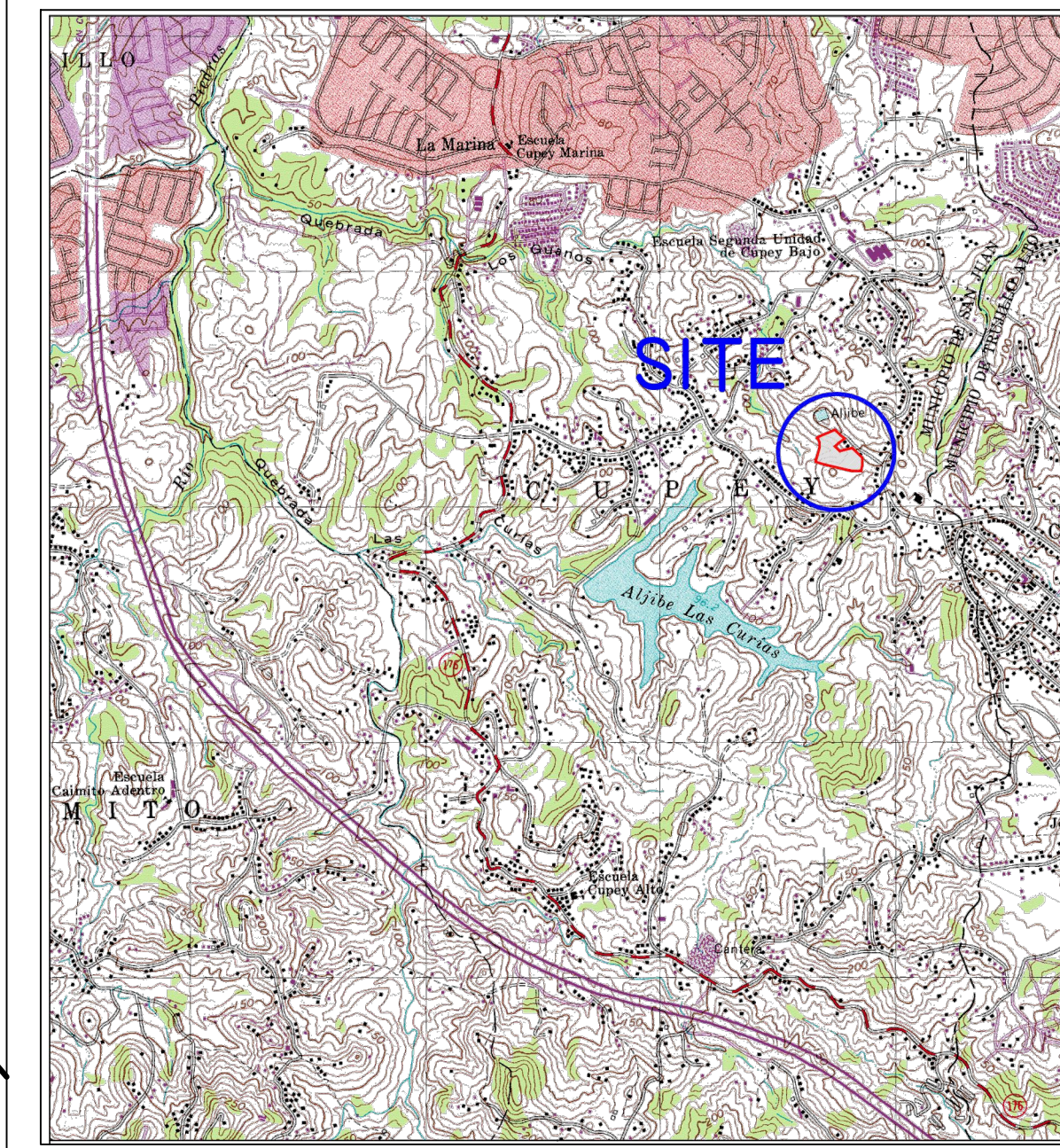


NOTES:

- 1- ALL DISTANCES ARE EXPRESSED IN THE METRIC SYSTEM.
- 2- FOR STREET DETAILS AND SPECIFICATION SEE SHEET SI-3.1
- 3- THE CONTRACTOR SHALL MATCH EXISTING STREET ELEVATIONS.
- 4- THE CONTRACTOR SHALL ESTABLISH BOUNDARY LINES ACCORDING TO THE SURVEY PLAN AND STREET LAYOUT BEFORE COMMENCING THE EARTHWORK.
- 5- THE CONTRACTOR WILL REPAIR ANY DAMAGE TO EXISTING PAVEMENTS, SIDEWALKS OR CURBS WHICH OCCUR DURING THE CONSTRUCTION PERIOD.
- 6- STATE ROAD P.R.-844 SHALL BE KEPT IN THE EXISTING CONDITION FOUND BEFORE THE CONSTRUCTION BEGINS. ANY DAMAGE DONE DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT COST TO THE OWNER.
- 7- CONSTRUCT HANDICAPPED RAMP WHERE INDICATED BY THE LEGEND SYMBOL.
- 8- THE CONTRACTOR SHALL ESTABLISH ALL NEW LOT BOUNDARY POINTS.
- 9- THE CONTRACTOR SHALL INFORM THE INSPECTOR OF ANY DISCREPANCIES IN MEASUREMENTS DURING THE STREETS AND LOTS LAYOUT.

LEGEND:

- STREET CENTER LINE
- BOUNDARY LINE
- LOT LINE
- 5.00 METERS WIDE BUFFER ZONE
- DEPARTMENT OF NATURAL RESOURCES
- STREET STATION
- BEARING
- SURVEY CONTROL POINT
- LOT NUMBER
- HANDICAPPED RAMP
- ANGLE
- RADIUS
- TANGENT
- EXTERNAL
- ARC LENGTH



LAMBERT COORDINATES, NAD83
X=241517.0769
Y=256913.6587

LOCATION MAP



442 CESAR GONZALEZ STREET
SAN JUAN P.R. 00918
TEL.: 787-296-2323
EMAIL: cgonzalez@cegpr.com

SHEET TITLE:
MASTER LOT DISTRIBUTION

REVISIONS

No.	DATE	DESCRIPTION
REV. 1	JULY 25, 19	NOTIFY CORRECTION LETTER AND PLANS
A.A.A. REV. 1.6	JULY 23, 20	AAA ROAD ACCESS RELOCATED



LOCATED:
STATE ROAD PR-844,
KM. 4.0, CUPEY WARD,
SAN JUAN, P.R.



CERTIFICACION:
YO, CARLOS O. GONZALEZ SANCHEZ, LIC. NO. 10238, CERTIFICO QUE SOY EL PROFESIONAL QUE DISEÑO ESTOS PLANOS Y LAS ESPECIFICACIONES COMPLEMENTARIAS. TAMBIEN, CERTIFICO QUE ENTENDO QUE DICHO PLANOS Y ESPECIFICACIONES CUMPLEN CON LAS DISPOSICIONES APLICABLES DEL REGLAMENTO CONANTO Y LAS DISPOSICIONES APPLICABLES DE LOS REGLAMENTOS Y CODIGOS DE CONSTRUCCION VIGENTES DE LAS AGENCIAS, JUNTO RECOMENDACIONES O CONFORMACIONES FORMADAS CON JURISDICCION. CERTIFICO, ADICIONALMENTE, QUE EN LA PREPARACION DE ESTOS PLANOS Y ESPECIFICACIONES SE HA CUMPLIDO OMBIENMENTE CON LO DISPUESTO EN LA LEY NOM. 14 DE 8 DE ENERO DE 2004, SEGUN ENMIENDADA, CONOCIDA COMO LA LEY PARA LA MODERNIZACION DE LA INDUSTRIA PUERTORRQUEÑA Y CON LA LEY NOM. 319 DE 15 DE MAYO DE 1998, SEGUN ENMIENDADA, LEY NOM. 96 DE 6 DE JULIO DE 1978, SEGUN ENMIENDADA, SEGUN APROBADO RECONOCIDO QUE CUALQUIER DECLARACION FALSA O FALSIFICACION DE LOS RECHOS QUE SE HAYA PRODUCIDO POR DESENCUENO O POR INEJECUCION EN SEA POR MI, MIS REGULACIONES CONANTO 2019, 23 AGENTES O EMPLEADOS, DE MI OFICINA PERSONAL O EN MI CONOCIMIENTO, ME HACEN RESPONSABLE DE CUALQUIER ACCION JUDICIAL Y DISCIPLINARIA POR LA OGP.

DRAWN BY: SCALE: DATE:
1:1000 12/7/20
DRAWN NO. SI-4.0

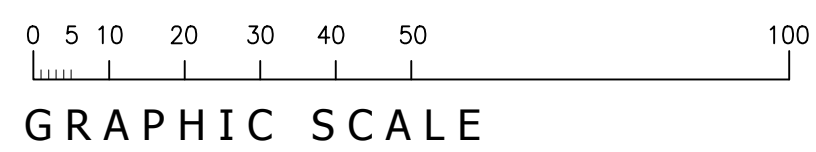
ENG. CARLOS GONZALEZ SANCHEZ, LIC. 20138
442 CESAR GONZALEZ STREET, SAN JUAN 00918

I CERTIFY THIS PROJECT COMPLES WITH THE PUERTO RICO BUILDING CODE 2018, INTERNATIONAL BUILDING CODE 2018 AND THE INTERNATIONAL GREEN CONSTRUCTION CODE 2018

[AAA-RM-16-65-0060] OGP: 2018-241750-SRI-031656; 2018-241750-SRI-029228; 2018-241750-SRI-023912; 2018-241750-SRI-020078; 2016-127875-SRI-011900

CONTROL STATION BASE LINE

NO.	BEARING	DISTANCE	NORTHING	EASTING	ELEVATION	DESCRIPTION
3			256917.7230	241015.2710	155.793	STA. PK. 3
4	N 89°07'31" E	137.3428	256963.8609	241702.1570	153.518	STA. PK. 4
5	S 86°14'52" W	103.7458	256779.7820	241717.1860	152.014	STA. PK. 5
7	S 76°10'09" E	111.2039	257070.9331	241459.8029	165.463	BM LAS CURVAS



Ensueño

89 RESIDENTIAL UNITS

Exhibit K

**Ensueño
San Juan, Puerto Rico**

Wild and Scenic Rivers Map

There are no surrounding wild and scenic rivers at project site. The only river in this category is located in the Yunque Rainforest. Reference information enclosed.



RIO MAMEYES, PUERTO RICO



[+ View larger map](#)

EXPLORE DESIGNATED RIVERS



Choose A State
Choose A River

Dark and foreboding one minute, sun-drenched and exploding with color the next, tropical rivers span every mood.



Managing Agency:

U.S. Forest Service, Caribbean National Forest

Designated Reach:

December 19, 2002. From its headwaters in the Ban AE60 de Oro Research Natural Area to the boundary of the Caribbean National Forest.

Classification/Mileage:

Wild — 2.1 miles; Scenic — 1.4 miles; Recreational — 1.0 miles; Total — 4.5 miles.



RELATED LINKS

Wild & Scenic Rivers of Puerto Rico (U.S. Forest Service)

Rio Mameyes Management Plan (2.5 MB PDF)

Rio Mameyes Management Plan Environmental Assessment (2.0 MB PDF)

Rio Mameyes Management Plan (454 KB PDF)

Photo Credit: Tim Palmer

Rio Mameyes

The Rio Mameyes flows in a northerly direction and has outstanding scenic, biological, recreation and historic values. The Rio Mameyes watershed covers 6.88-square miles within the El Yunque National Forest, or 10.4% of the forest. Water quality is optimum within the upper segment, since the entire corridor is located in the Bano de Oro Natural Area and no development exist. Due to steep slopes, no significant flood plains occur. There are approximately 73 acres of riparian wetlands in the designated segments.



Designated Rivers

About WSR Act
State Listings
Profile Pages

National System

WSR Table
Study Rivers
Stewardship
WSR Legislation

River Management

Council
Agencies
Management Plans
River Mgt. Society
GIS Mapping

Resources

Q & A Search
Bibliography
Publications
GIS Mapping
Logo & Sign Standards



National Wild and Scenic River System in the U.S.

Wild and Scenic Rivers

There are 226 national wild and scenic rivers in 40 States and the Commonwealth of Puerto Rico, totaling more than 13,412 miles (as of April 2019). This is a little more than one-quarter of one percent of the nation's rivers.

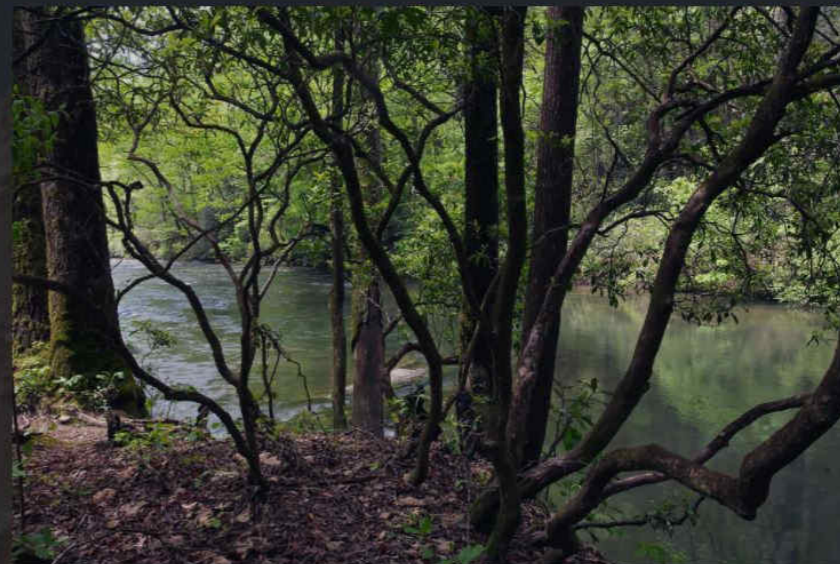


Photo (above). West Fork of the Chattooga River, Georgia and South Carolina (Tim Palmer).

LEGEND

Wild And Scenic Rivers



USA States (Generalized)



SITE



Copyright:(c) 2014 Esri



Exhibit L



GOBIERNO DE PUERTO RICO

Departamento de Desarrollo Económico y Comercio
Oficina de Gerencia de Permisos

3 de junio de 2019

Ing. Roberto López Rosario
PO Box 2399
Toa Baja, PR 00951

Determinación de Variación No Sustancial

2018-241750-PCD-003937

Ensueño

Carr. PR-844 Km 4.0

Bo. Cupey Bajo

San Juan, Puerto Rico 00926

JCA-99-016 (JP)

Estimado ingeniero López:

La División de Evaluación de Cumplimiento Ambiental (DECA) tiene bajo consideración la petición de Determinación de Variación No Sustancial, relacionada con el proyecto de referencia.

Este proyecto obtuvo cumplimiento ambiental mediante el documento ambiental Núm. JCA-99-016 (JP), con fecha del 1 de marzo de 2000. El mismo consiste en la construcción de 680 unidades de vivienda, en un predio de terreno de 52 cuerdas.

Este proyecto fue aprobado por la Junta de Planificación bajo resolución 97-17-0566-JPU, para el desarrollo de 680 unidades multifamiliares básicas de viviendas con parámetros R-3 (Hoy día parámetros RI según el Reglamento Conjunto). La Administración de Reglamentos y Permisos aprobó un desarrollo preliminar alterno, para conformar el desarrollo a lo aprobado en la última enmienda de la Junta de Planificación, esto mediante caso 00DA2-00001-0184. Se construyeron dos condominios, el primer condominio se conoce como Alturas del Bosque con 170 unidades multifamiliares en 16.7976 cuerdas y el segundo condominio conocido como Alturas del Bosque II con 30 unidades multifamiliares en 4.1706 cuerdas. En la actualidad se han construido un total de 220 unidades básicas de vivienda y resta por construir 320 unidades básicas de vivienda.

Ahora mediante esta Pre-Consulta se solicita evaluar una Solicitud de “Variación No-Sustancial” para el desarrollo de 88 unidades unifamiliares de interés social para alquiler en un área de 88,158.99 metros cuadrados, remanentes de la finca.

Luego de la evaluación correspondiente y de acuerdo a la Regla 139 (B) del RPEA de la JCA, la DECA entiende que la petición sometida ante la OGPe no constituye una variación sustancial al concepto original presentado para el proyecto, por lo que no requerirá de ningún trámite adicional como parte del proceso de planificación ambiental.

OGPE

Ing. Roberto López Rosario
Determinación de Variación No Sustancial
2018-241750-PCD-003937
Ensueño
Página #2

A tales efectos, la Determinación de Cumplimiento Ambiental **JCA-99-016 (JP)**, emitida para el proyecto, continúa vigente incorporándose a la misma la variación propuesta.

Le recordamos que deberá presentar esta comunicación con la Determinación de Cumplimiento Ambiental al momento de acudir a las Entidades Gubernamentales concernidas donde se le requiera la correspondiente evidencia de cumplimiento ambiental.

Cordialmente,


Arq. Maria R. Cintrón Flores
Secretaria Auxiliar
Departamento de Desarrollo Económico y Comercio de Puerto Rico
Oficina de Gerencia de Permisos

Exhibit M

ESTADO LIBRE ASOCIADO DE PUERTO RICO
OFICINA DE LA GOBERNADORA
JUNTA DE CALIDAD AMBIENTAL



24 de febrero de 2003

Dada: 528-03

SR. RUBEN VEGA MARTINEZ
GERENTE INTERINO
CENTRO EXPRESO DE TRAMITE
ADMINISTRACIÓN DE REGLAMENTOS Y PERMISOS
P.O. BOX 41179, SAN JUAN, P.R. 000940-1179

RE: ENM. JCA 99-016 JP
PROYECTO ALTURAS DEL BOSQUE
CUPEY, P.R.

11-0647
COPIA FIEL Y EXACTA

AREA ASESORAMIENTO CIENTIFICO

[Handwritten Signature]
FIRMA

Estimado señor Vega Martínez:

La Junta de Calidad Ambiental ha analizado el documento ambiental sometido para el proyecto de referencia. El mismo consiste en una Enmienda al proyecto de referencia, donde impactará un área de humedal de 0.15 acres de un total de 0.26 acres del proyecto a desarrollarse.

Entendemos que al presentar el mismo su instrumentalidad ha cumplido con la fase de evaluar el posible impacto ambiental de la acción propuesta, de acuerdo con el Artículo 4(c) de la Ley Sobre Política Pública Ambiental, Ley Número 9 del 18 de junio de 1970, según enmendada. No obstante, para una mejor realización de la acción propuesta esta Junta emite las siguientes recomendaciones:

1. Previo a dar comienzo a la construcción o efectuar algún movimiento de tierra, deben obtener de esta Junta los siguientes permisos:
 - a. Permiso de Fuente de Emisión (PFE) para el polvo fugitivo durante la fase de construcción.
 - b. Para realizar una Actividad Generante de Desperdicios Sólidos (Formulario DS-3).
2. Deberán mantener los camiones de carga que se utilicen para transportar material, desechos de relleno y/o de construcción cubiertos con toldos, mientras estén en movimiento para evitar generación de emisiones de particulado.

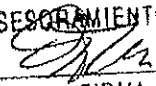
SR. RUBEN VEGA MARTINEZ
PAGINA 2
Enmienda JCA 99-016 JP
24 de febrero de 2003

3. El almacenaje, manejo y disposición de los desperdicios sólidos a generarse durante la fase de construcción y operación del proyecto, debe realizarse en conformidad con la reglamentación vigente.
4. La estación de bomba deberá cumplir con el requisito de 15 metros de separación de zona de amortiguamiento de cualquier estructura existente o a construirse. La parcela de la estación de bomba deberá estar pavimentada.
5. En el caso de instalar, reemplazar o cerrar algún tanque para almacenar combustible deberán obtener los correspondientes permisos del Area de Calidad de Agua de esta Junta.
6. Deberán solicitar una enmienda o modificación del Permiso CES 00-65-0322-OE, actualmente vigente, para así incluir el área de 0.225 acres para la mitigación de 0.15 acres del humedal existente que será impactado por la construcción del proyecto. Además, deberán incluir un nuevo plano e información del proyecto que contenga el área donde se llevará a cabo la mitigación, las medidas de control de la erosión y sedimentación que serán implantadas, nombre e identificación gráfica de los cuerpos de agua que podrían ser impactados y fecha de comienzo y finalización de las obras de mitigación y otra información requerida en la solicitud de enmienda al permiso CES.
7. Debido a que para el proyecto de mitigación se alterarán los niveles topográficos de las riberas de una quebrada existente y habrá extracción y movimiento del material de la corteza terrestre, deberán consultar con el Departamento de Recursos Naturales y Ambientales para las recomendaciones pertinentes al tratamiento que se le dará a esta quebrada y la disposición del material excavado.

Agradecemos su cooperación por conservar y mantener la calidad de nuestro ambiente.

Cordialmente,


LIC. ESTEBAN MUJICA COTTO
PRESIDENTE

COPIA FIEL Y EXACTA
AREA ASESORAMIENTO CIENTIFICO

FIRMA



GOBIERNO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE CALIDAD AMBIENTAL

1 de marzo del 2000

DADA 1285-00

SR BIJAN ASHRAFI
FUNCIONARIO RESPONSABLE
JUNTA DE PLANIFICACION
P O BOX 41119
SAN JUAN PUERTO RICO 00940-1119

11-0646
COPIA FIEL Y EXACTA

AREA ASESORAMIENTO CIENTIFICO
[Handwritten Signature]
FIRMA

ASUNTO: JCA 99-016(JP)
PROYECTO RESIDENCIAL
VISTAS REALES
CARR. 844, KM. 4.0, BO. CUPEY
RIO PIEDRAS, PUERTO RICO

11/06/00/11

Estimado señor Ashrafi:


La Junta de Calidad Ambiental ha analizado el documento ambiental sometido para el proyecto de referencia. El mismo consiste en la construcción de 680 unidades de viviendas en un área de 52 cuerdas.

Mediante Resolución Núm. R 99-42-3 la Junta de Gobierno de la JCA le notificó cumplimiento con el Artículo 4c de la Ley Sobre Política Pública Ambiental y con el Reglamento para el proceso de Presentación, Evaluación y trámite de documentos ambientales.

Con el propósito de una mejor realización de la acción propuesta en su etapa posterior de operación y/o construcción se debe seguir los siguientes:

1. Previo a dar comienzo a la construcción o efectuar algún movimiento de tierra, deben obtener de esta Junta los siguientes permisos:
 - a. Permiso Fuente de Emisión (PFE) para el polvo fugitivo durante la fase de construcción.
 - b. Para realizar una Actividad Generante de Desperdicios Sólidos (Formulario DS-3).

PAGINA 2
SR. BIJAN ASHRAFI
JCA 99-016(JP)
1 DE MARZO DEL 2000

COPIA FIEL Y EXACTA
AREA ASESORAMIENTO CIENTIFICO

FIRMA

- c. Permiso para el Control de la Erosión y Prevención de la Sedimentación.
2. El almacenaje, manejo y disposición de los desperdicios sólidos a generarse durante la fase de construcción y operación del proyecto, debe realizarse en conformidad con la reglamentación vigente.
 3. Durante la fase de construcción, deberán tomar las medidas necesarias para evitar que residuos de sustancias orgánicas e inorgánicas tales como: aceites, combustibles u otras sustancias químicas, puedan ser arrastradas por la escorrentía y ganen acceso a cualquier cuerpo de agua o al sistema pluvial.
 4. Previo al inicio de la construcción deberá realizar la coordinación correspondiente con la Autoridad de Acueductos y Alcantarillados para la conexión del proyecto propuesto de manera que la planta de tratamiento de aguas usadas a la cual planean conectarse, las líneas y troncales estén en condiciones de aceptar la descarga de las aguas usadas a ser generadas durante la fase operacional del proyecto. Esto incluye obtener todos los permisos necesarios de dicha agencia, previo a su conexión.

De no poder realizar la coordinación correspondiente, deberán someter una enmienda al documento ambiental para considerar otra alternativa para tratar los desperdicios sanitarios a generarse en el proyecto.

5. Deberán consultar con el Cuerpo de Ingenieros del Departamento del Ejercito de los Estados Unidos, para determinar si es necesario obtener un permiso conforme a la Ley de Rios y Puertos del 1899 y la Sección 404 de la Ley Agua Limpia (Clean Water Act).
6. Con respecto al área de ubicación del proyecto, parte se encuentra en un área ecológicamente sensitiva, por lo tanto, deberán realizar una consulta al Departamento de Recursos Naturales y Ambientales (DRNA) para conocer los requisitos de construcción y conservación del área.
7. Se deberán tomar las medidas de control que sean necesarias durante la etapa de construcción de forma tal, que no se incurra en violación al Reglamento para el Control de la Contaminación por Ruido, evitándose así que los vecinos del área sean afectados adversamente por contaminación sónica. Deberá prestarse atención especial aquellas áreas donde se encuentren zonas escolares y de tranquilidad.

PAGINA 3


SR. BIJAN ASHRAFI

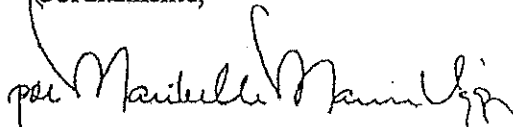
JCA 99-016(JP)

1 DE MARZO DEL 2000

8. Las emisiones de polvo fugitivo que se generan durante la fase de construcción del proyecto deberán ser minimizadas o controladas utilizando las siguientes medidas:
 - a. Mantener el área húmeda durante la etapa de acondicionamiento del terreno.
 - b. Utilizar toldos o mantas sobre los camiones de arrastre. Cabe señalar que no se permitirá la quema de árboles y arbustos o la quema de basura en el proceso de limpieza de los predios de la construcción.
 - c. Cumplir con la Regla 404 (polvo fugitivo) del Reglamento para el Control de la Contaminación Atmosférica.
9. En el caso del establecimiento de cualquier tanque provisional o permanente para almacenar hidrocarburos, deberán consultar con la División de Permisos e Ingeniería del Area de Calidad de Agua de esta Junta si fuera sobre bases de hormigón, con el Programa de Control de la Inyección Subterránea si fuera sobre el terreno o con el Programa para el Control de Tanques Soterrados si fuera soterrado.
10. Cumplir con las recomendaciones de las agencias consultadas.

Agradecemos su cooperación por mantener y conservar la calidad de nuestro ambiente.

COPIA FIEL Y EXACTA
AREA ASESORAMIENTO CIENTIFICO

FIRMA

Cordialmente,

Héctor Russe Martínez
Presidente

Jca0016

Exhibit N

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Oficina del Gobernador
JUNTA DE PLANIFICACION
Santurce, Puerto Rico

26 de junio de 1996

Consulta Número 97-17-0566-JPU

RESOLUCION

Lema Developers por conducto del ingeniero Juan Ayguabibas, amparándose en la reglamentación vigente, sometió a la consideración de esta Junta de Planificación la Consulta Número 97-17-0566-JPU para la ubicación de un proyecto residencial mixto en una finca con cabida de 51.54 cuerdas que radica en la Carretera Estatal Número 844, kilómetro 4.0 en el Barrio Cupey de Río Piedras. Dichos terrenos están comprendidos dentro de un Distrito R-1, según el Mapa de Zonificación de San Juan (Sección Río Piedras) vigente.

De acuerdo a la información suministrada, la parte proponente contempla la utilización de dichos terrenos para la ubicación de un proyecto residencial mixto que consiste de 290 apartamentos tipo "walk-up - walk-down" en siete (7) edificios y 234 unidades unifamiliares con solar básico de 300 metros cuadrados.

Del estudio de dicha consulta, esta Junta de Planificación, en su reunión del 26 de junio de 1997, determinó que es necesario la elaboración de una Declaración de Impacto Ambiental Preliminar (DIA-P). Por lo tanto la Junta acordó dejar en suspenso la presente consulta por los próximos ciento veinte (120) días, a partir de la fecha de notificación de esta resolución, para que la parte proponente someta la información solicitada.

Dicha Declaración de Impacto Ambiental-Preliminar deberá discutir e incluir, pero sin limitarse a ello lo solicitado a continuación:


1. Sistema a ser utilizado para mitigar el aumento en las escorrentías al Río Piedras a ser generadas por el proyecto.
2. Estudios correspondientes para demostrar la estabilidad del terreno.
3. Capacidad en la infraestructura.
4. Impacto en el tránsito.

Continuación: Consulta Número 97-17-0566-JPU


Se deberá someter a esta Junta una copia avanzada de la DIA-P para cotejar que la misma esté de acuerdo en formato y contenido con la Sección 5.3 (Requisitos de Contenido de la DIA) del Reglamento Sobre Declaraciones de Impacto Ambiental de la Junta de Calidad Ambiental (JCA). La misma deberá estar redactada en español e incluirá copia de todas aquellas comunicaciones de agencias que hayan contestado sobre el proyecto y cualquier otro documento concerniente a éste, incluyendo esta resolución. Si el estudio del borrador demuestra que el mismo es adecuado, procederemos a solicitar las copias adicionales que sean necesarias para circularlas a las agencias.

Por la presente, tomando en consideración lo anteriormente expuesto, en virtud de las disposiciones de las leyes, reglamentos y normas de planificación vigentes, esta Junta de Planificación de Puerto Rico, DEJA EN SUSPENSO LA PRESENTE CONSULTA.

DISPONIENDOSE que de no someterse la información requerida dentro del término de tiempo estipulado la Junta podrá tomar la acción que corresponde, inclusive podría denegar la consulta por falta de interés.


NORMA E. BURGOS ANDUJAR
Presidenta

CERTIFICO: Que la anterior es copia fiel y exacta de la Resolución adoptada y emitida en la consulta de epígrafe por la Junta de Planificación de Puerto Rico, en su reunión celebrada el día 26 de junio de 1996, y para uso general y para su conocimiento y acción pertinente archivo en autos y le notifico a las partes la presente copia bajo mi firma y sello oficial de esta Junta en San Juan, Puerto Rico, hoy 08 JUL 1997


LUIS FRIAS TABOAS
Secretario

GOBIERNO DE PUERTO RICO
Oficina del Gobernador
JUNTA DE PLANIFICACION
Santurce, Puerto Rico

28 de agosto de 1997

Primera Extensión a la
Consulta Número 97-17-0566-JPU

RESOLUCION

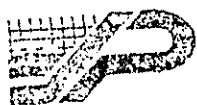
Lema Developers, por conducto del ingeniero Juan Ayguabibas, amparándose en la reglamentación vigente, sometió a la consideración de esta Junta de Planificación la Consulta Número 97-17-0566-JPU para la ubicación de un proyecto residencial mixto en una finca con cabida de 51.54 cuerdas que radica en la Carretera Estatal Número 844, kilómetro 4.0 en el Barrio Cupey de Río Piedras. Dichos terrenos están comprendidos dentro de un Distrito R-1, según el Mapa de Zonificación de San Juan (Sección Río Piedras) vigente.

De acuerdo a la información suministrada, la parte proponente contempla la utilización de dichos terrenos para la ubicación de un proyecto residencial mixto que consiste de 290 apartamentos tipo "walk-up - walk-down" en siete (7) edificios y 234 unidades unifamiliares con solar básico de 300 metros cuadrados.

La Junta de Planificación, en su reunión del 26 de junio de 1997, determinó que es necesario la elaboración de una Declaración de Impacto Ambiental Preliminar (DIA-P). Por lo tanto la Junta acordó dejar en suspenso la presente consulta por los próximos ciento veinte (120) días, a partir de la fecha de notificación de esta resolución, para que la parte proponente someta la información solicitada. Dicho acuerdo fue notificado el 8 de julio de 1997.

Ahora, la parte proponente el ingeniero Juan Ayguabibas en carta fechada a 18 de agosto de 1997, solicita una prórroga de 120 días adicionales para someter la información solicitada.

Por la presente, tomando en consideración lo anteriormente expuesto, en virtud de las disposiciones de las leyes, reglamentos y normas de planificación vigentes, esta Junta de Planificación de Puerto Rico, concede 60 días adicionales a partir del 8 de noviembre de 1997, y **DEJA EN SUSPENSO LA PRESENTE CONSULTA.**



ESTADO LIBRE ASOCIADO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE PLANIFICACION

Continuación: Consulta Número 97-17-0566-JPU

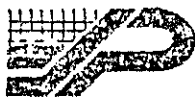
DISPONIENDOSE que de no someterse la información requerida dentro del término de tiempo estipulado la Junta podrá tomar la acción que corresponda, inclusive podría denegar la consulta por falta de interés.

por Ine B. Caballero Mercado
NORMA E. BURGOS ANDUJAR
Presidenta

CERTIFICO: Que la anterior es copia fiel y exacta de la Resolución adoptada y emitida en la consulta de epígrafe por la Junta de Planificación de Puerto Rico, en su reunión celebrada el día 28 de agosto de 1997, y para uso general y para su conocimiento y acción pertinente archivo en autos y le notifico a las partes la presente copia bajo mi firma y sello oficial de esta Junta en San Juan, Puerto Rico, hoy

15 SEP 1997

por L. Frias Taboas
LUIS FRIAS TABOAS
Secretario



ESTADO LIBRE ASOCIADO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE PLANIFICACION

VISTAS
GUALES

GOBIERNO DE PUERTO RICO
Oficina del Gobernador
JUNTA DE PLANIFICACION
Santurce, Puerto Rico

22 de enero de 1998

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Segunda Extensión a la
Consulta Número 97-17-0566-JPU

Visitas Reales

RESOLUCION

Esta Junta de Planificación en su reunión del 26 de junio de 1997, dejó en suspenso por 120 días la Consulta Número 97-17-0566-JPU para que la parte proponente sometiera una Declaración de Impacto Ambiental preliminar para el proyecto propuesto. Se propone la ubicación de un proyecto residencial en una finca con cabida de 51.54 cuerdas. La misma radica en la Carretera PR-844, kilómetro 4.0 en el Barrio Cupey de San Juan. Dichos terrenos están comprendidos dentro de un Distrito R-1, según el Mapa de Zonificación de San Juan (sección Río Piedras) vigente.

El 28 de agosto de 1997 la Junta concedió 60 días adicionales a petición de la parte proponente para que someter la información requerida.

De acuerdo a la información suministrada, la parte proponente contempla la utilización de dichos terrenos para la ubicación de un proyecto residencial para la construcción de 234 unidades de vivienda en solares de 300 metros cuadrados y 290 apartamentos en edificios tipo "walk up".

La parte proponente, el 12 de diciembre de 1997, radicó una solicitud de enmienda al proyecto propuesto. Solitan se le permita la construcción de 541 apartamentos tipo "garden apartments" y 234 unidades tipo "town houses"; para un total de 707 unidades de vivienda.

Esta Junta de Planificación, en su reunión del 22 de enero de 1998, acordó dejar en suspenso la consulta por sesenta (60) días adicionales para que la parte proponente someta la DIA-p en la que discuta el proyecto enmendado; por lo tanto se deja en suspenso la presente consulta hasta tanto la parte proponente someta la información solicitada.

Por la presente, tomando en consideración lo anteriormente expuesto, en virtud de las disposiciones de las leyes, reglamentos y normas de planificación vigentes, esta Junta de Planificación de Puerto Rico, SE DEJA EN SUSPENSO LA PRESENTE CONSULTA.

DISPONIENDOSE que de no someterse la información requerida dentro del término de tiempo estipulado la Junta podrá tomar la acción que corresponda, inclusive podría denegar la consulta por falta de interés.

por José R. Abellán Mercado
NORMA E. BURGOS ANDUJAR

CERTIFICO: Que lo anterior es copia fiel y exacta de la Resolución adoptada y emitida en la consulta de epígrafe por la Junta de Planificación de Puerto Rico, en su reunión celebrada el día 22 de enero de 1998, y para uso general y para su conocimiento y acción pertinente archivo en autos y le notifico a las partes la presente copia bajo mi firma y sello oficial de esta Junta en San Juan, Puerto Rico, hoy

05 FEB 1998

Luis Frias Taboas
LUIS FRIAS TABOAS
Secretario

ESTADO LIBRE ASOCIADO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE PLANIFICACION

GOBIERNO DE PUERTO RICO
Oficina del Gobernador
JUNTA DE PLANIFICACION

12 de enero de 2000

Tercera Extensión a la
Consulta Número 97-17-0566-JPU

RESOLUCION

Lema Developers, por conducto del ingeniero Juan Ayguabibas, amparándose en la reglamentación vigente, sometió ante la consideración de esta Junta de Planificación la Consulta de Número 97-17-0566-JPU, para la ubicación de un proyecto residencial mixto en una finca con cabida de 51.54 cuerdas que radica en la Carretera Estatal Número 844, kilómetro 4.0, en el Barrio Cupey del Municipio de Río Piedras.

La Junta de Planificación, en su reunión del 26 de junio de 1997, dejó en suspenso la consulta por ciento veinte (120) días, para que la parte proponente sometiera una DIA-P.

El 28 de agosto de 1997, la Junta concedió sesenta (60) días adicionales a petición de la parte proponente para someter la información requerida.

Más tarde, la parte proponente, el 12 de diciembre de 1997, radicó una solicitud de enmienda al proyecto para aumentar el número de unidades.

Esta Junta de Planificación, en su reunión del 22 de enero de 1998, dejó en suspenso la consulta por sesenta (60) días adicionales para que la parte proponente sometiera la DIA-P en la que se discutiera el proyecto enmendado.

En consideración a la información obrante en el expediente sometida por la parte proponente, a la información obtenida por la Junta de sus documentos de referencia, tales como, pero sin limitarse a éstos: mapas topográficos, mapas de zonificación vigentes, mapas de zonas susceptibles a inundaciones, estudio de suelos del Servicio de Conservación de Suelos Federal y archivo gráfico, esta Junta llega a las siguientes:

DETERMINACIONES DE HECHOS

1. Se propone el desarrollo de un proyecto residencial multifamiliar que consiste de 707 unidades de vivienda distribuidas en 541 apartamentos tipo "garden apartments" y 234 unidades tipo "town houses".
2. La finca en que se propone el proyecto está delimitada por el Norte, con terrenos propiedad del señor Víctor Fernández; por el Sur, con terrenos propiedad de los señores Sinforoso Castro y Eduardo Fernández; por el Este, con terrenos propiedad de los señores Florencio Pérez y Adrian Betacourt.
3. Las agencias consultadas se expresaron como sigue:
 - a. La Autoridad de Acueductos y Alcantarillados, mediante comunicación del 19 de diciembre de 1999, informa que en el sector donde se pretende ubicar la propuesta, existen las facilidades de acueducto y alcantarillado sanitario; no obstante, la parte proponente deberá mejorar los sistemas existentes para poder servir a su proyecto.

CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

Posteriormente en carta del 23 de abril de 1999, la Compañía de Aguas de Puerto Rico, informa que el proponente deberá realizar una consulta oficial a la Región Metro a fin de determinar la forma más eficiente de prestar sus servicios de agua y alcantarillado.

- b. La Autoridad de Energía Eléctrica, mediante comunicación fechada a 29 de diciembre de 1997, realizó una evaluación del proyecto y le indicó al proyectista sus reponsabilidades.

- c. La Autoridad de Carreteras y Transportación, mediante comunicación fechada a 17 de diciembre de 1997, informa y citamos:

"Se deberá consultar al Negociado de Planes de Usos de Terrenos de esa Junta con relación a la Calle Principal Periferal Sur que según el Plan Vial para la Región Metropolitana de San Juan discurre por la colindancia Norte del desarrollo.

La construcción de la referida calle principal será por los desarrolladores del proyecto o por el municipio.

Si embargo, debido a la magnitud del proyecto propuesto se deberá preparar un estudio en donde se evalúen las condiciones del tránsito presente y futuro en su sector de influencia y se determine el impacto que este tendrá en el sistema vial que servirá al mismo. Se deberá considerar en el análisis de tránsito a realizarse el efecto de otros desarrollos propuestos en el área como también la necesidad de la instalación de un sistema de semáforos en dicho sector."

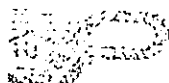
Como parte del documento ambiental preparado para el caso se realizó el correspondiente estudio de tránsito el cual fue referido a la Autoridad de Carreteras y Transportación: para la evaluación correspondiente.

- d. El Departamento de Recursos Naturales y Ambientales, mediante comunicación fechada a 23 de diciembre de 1997, informa y citamos:

"Hacemos referenica a su comunicación donde solicita nuestras recomendaciones en relación con el proyecto residencial Vistas Reales en el Barrio Cupey de Río Piedras.

Debido a que a través de los terrenos discurre una quebrada, se deberá dedicar a uso público una faja de terreno, comprendida por el cause de la quebrada que atraviesa los terrenos, más una franja adicional de cinco (5) metros de ancho a ambos lados de dicho cuerpo de agua y medida desde el borde del cause de la misma.

En donde se propone la formación de taludes, si alguno, en colindancia con la quebrada, la base de los mismos descansará fuera la faja de terreno de dicha quebrada. Además, se tomarán en consideración la estabilidad de los taludes y la protección de los mismos contra la erosión.



CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

Para cualquier obra de construcción sobre la quebrada, el proponente deberá someter en etapa subsiguiente los planos y los cómputos hidrológicos hidráulicos que determinarían el diseño de la obra. Dichos cómputos deberán estar basados en una tormenta con un período de recurrencia de cien (100) años.

Se deberá coordinar con el Programa de Reforestación Urbana y Rural del Negociado de Bosques de este Departamento para la poda de la vegetación existente o siembra.

Para el movimiento de terreno, deberá obtener un Permiso de Extracción de Material de la Corteza Terrestre de este Departamento.

Deberá obtener de la Junta de Calidad Ambiental un Plan para el Control de Erosión y Sedimentación (Plan CES) para minimizar la erosión hacia la Quebrada Los Guanos y los otros cuerpos de agua existentes en el lugar.

Cumpliendo con lo antes expuesto, el Departamento de Recursos Naturales y Ambientales no tiene objeción a la etapa de ubicación del proyecto propuesto."

- e. El Instituto de Cultura Puertorriqueña, mediante comunicación fechada a 22 de abril de 1999, informa que la Evaluación Arqueológica Fase IA realizada cumple adecuadamente con ese tipo de investigación arqueológica y que en la continuación de los estudios arqueológicos reglamentarios se debe proseguir con la siguiente etapa de investigación a nivel de la Fase IB.

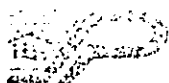
- f. El Gobierno Municipal de San Juan, mediante comunicación fechada a 9 de noviembre de 1999, presentó objeción al proyecto por que el desarrollo no armoniza con otros desarrollos aledaños por suponer una alteración sustancial de los rasgos naturales y topográficos del área, y porque estos terrenos están dentro del área objeto de la solicitud de Moratoria que hiciera el Municipio a la Junta de Planificación.

- g. El Departamento de Agricultura, mediante comunicación fechada a 3 de junio de 1999, informa que no objeta el uso propuesto e informa lo siguiente:

Los suelos de ésta finca pertenecen a la Serie Múcara arcilloso, con declive de 20-40% y capacidad para uso agrícola VIe.

Estos suelos son moderadamente profundos, inclinados y de buen drenaje. La permeabilidad es moderada y la capacidad de retención de agua baja. El escurrimiento es rápido y son susceptibles a erosión. Además, son suelos difíciles de trabajar por su inclinación, así como por la plasticidad y pegajosidad de su arcilla.

En visita realizada por un técnico de este Departamento a la finca objeto de consulta, se pudo observar que la misma se encuentra en pastos, barbecho y bosque. En la misma



existe una cisterna de la Autoridad de Acueductos y Alcantarillados. En su periferia inmediata no se observan proyectos agrícolas. El sector es uno de considerable desarrollo residencial.

Del estudio y análisis del documento presentado con esta propuesta, se desprende que el referido proyecto no afectará terrenos de alto potencial agrícola.

- h. El Departamento de Salud, mediante comunicación fechada a 4 de junio de 1999, informa que no tiene objeción al proyecto y emite sus requerimientos.
- i. La Autoridad de Desperdicios Sólidos, en carta del 20 de abril de 1999, informa que la acción propuesta no conflige con la política pública de esa Autoridad en cuanto al manejo y disposición de los residuos sólidos y emite una serie de requerimientos.
4. La Junta de Calidad Ambiental, mediante Resolución y Notificación (R-99-42-3) sobre DIA-JCA-99-0016 (JP) Proyecto Residencial Vistas Reales del 2 de diciembre de 1999, resolvió que la Declaración de Impacto Ambiental preparada cumple con todos los requisitos de ley y reglamento y con lo solicitado mediante carta del 5 de agosto de 1999. Por tal razón la Junta de Gobierno de dicha Junta resolvió que la Junta de Planificación ha dado cumplimiento con el Artículo 4© de la Ley Sobre Política Pública Ambiental y con el Reglamento Sobre Declaraciones de Impacto Ambiental de la Junta de Calidad Ambiental (RDIA), dando así por terminado el proceso de evaluación del documento ambiental.
5. Mediante carta fechada a 30 de noviembre de 1999, suscrita por la señora Rosa Seijo los vecinos de Cupey expresan preocupación sobre el proyecto y solicitan que se deniege la consulta.
6. Mediante carta del 2 de noviembre de 1999, la Comisión de Ciudadanos al Rescate de Caimito Inc., representada por Haydee Colón Cardona, señala que de la lectura de la DIA del proyecto surgen interrogantes que necesita exponer posteriormente, en adición recoge parte de los argumentos que han presentado los vecinos de Cupey.

En armonía con las anteriores determinaciones de hechos se llega a las siguientes:

CONCLUSIONES DE DERECHO

1. Los terrenos objeto de consulta están comprendidos dentro de un Distrito R-1, según el Mapa de Zonificación de San Juan vigente y ubican en Zona de Transición según el Plan de Usos de Terrenos de la Región Metropolitana de San Juan vigente.
2. El Reglamento de Zonificación de Puerto Rico (Reglamento de Planificación Número 4) con vigencia del 16 de septiembre de 1992, en el Tópico 12, Sección 97.02 faculta a la Junta para considerar proyectos de desarrollos residenciales extensos sujetos a las limitaciones y alcances establecidos en dicho Reglamento, entre las que se incluye el que esté disponible o pueda proveerse la infraestructura necesaria para atender el proyecto, que se provea el estacionamiento requerido y que este conforme con el Plan de Usos de Terrenos hasta donde ese haya sido estudiado y analizado.

CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

El proyecto propuesto cumple con los criterios establecidos anteriormente.

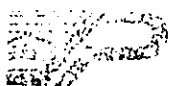
3. La parte propuesta ha sido sometida de acuerdo a lo establecido en el Reglamento para Procedimientos Adjudicativos de la Junta de Planificación, según enmendado.
4. La Ley Orgánica de la Junta de Planificación, Ley Número 75 del 24 de junio de 1975, según enmendada, en el Artículo 11, Inciso 14, autoriza expresamente a la Junta a "hacer determinaciones sobre usos de terrenos dentro de los límites territoriales del Estado Libre Asociado de Puerto Rico, con sujeción a las normas y requisitos consignados en esta ley o cualquier otra ley aplicable para tales casos."

ACUERDO

Esta consulta de ubicación ha sido examinada y analizada por esta Junta a la luz de la información suministrada por el Proponente, de las disposiciones de leyes, reglamentos y normas de planificación vigentes, y del resultado del estudio desde el punto de vista ambiental. También se ha dado consideración a las proyecciones poblacionales y a la disponibilidad de terrenos apropiados para la construcción de viviendas y otros usos en el área que comprende el proyecto propuesto.

La consulta fue considerada por esta Junta de Planificación, quien acordó que es viable el desarrollo de los terrenos anteriormente descritos para el uso propuesto, condicionado a los siguientes señalamientos y recomendaciones, los cuales habrán de tomarse en consideración al prepararse y someterse en la próxima etapa en el trámite del proyecto, etapa que será determinada por la Administración de Reglamentos y Permisos.

1. Se autoriza un proyecto residencial multifamiliar que consiste de 707 unidades de vivienda distribuidas en 541 apartamentos tipo "garden apartments" y 234 unidades tipo "town houses".
2. Se cumplirá con los requerimientos de las agencias concernidas.
3. Lo demás parámetros de diseño corresponderán a un Distrito R-3.
4. Cumplirá con las medidas de mitigación contenidas en la Declaración de Impacto Ambiental preparada para el proyecto.
5. La Administración de Reglamentos y Permisos determinará cuál será la próxima etapa en el trámite del proyecto, la cual deberá cumplir con todas las disposiciones de leyes, reglamentos y normas de planificación vigentes y aplicables, así como con las normas de dicha Administración.
6. Se cumplirá con las disposiciones del Reglamento de Planificación Número 25, Reglamento de Siembra, Corte y Forestación para Puerto Rico, vigente.
7. En la próxima etapa ante la Administración de Reglamentos y Permisos, se deberán implantar las medidas de mitigación contenidas en el Estudio Geotécnico preparado.
8. Se deberá incluir un sistema para controlar las escorrentías generadas por el proyecto hacia el Río Piedras.



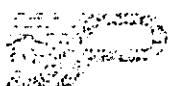
CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

9. El movimiento de tierra a llevarse a cabo deberá mantener los rasgos topográficos lo más posible y limitarse el mismo a la porción de terreno que se considere en la aprobación del plano de construcción. Durante esta etapa se deberá mantener el área húmeda para evitar la generación de polvo fugitivo.
10. Se depositarán los desechos de materiales de construcción en vertederos autorizados por la Junta de Calidad Ambiental.
11. Se mantendrán los camiones de carga que se utilicen para transportar material de relleno y/o de construcción cubiertos mientras estén en movimiento para evitar generación de materia particulada.
12. Se observará el período de operación que establece el Reglamento para la Prevención y el Control de la Contaminación por Ruido para actividades de construcción de esta naturaleza.
13. Los vehículos y maquinaria a utilizarse en el proyecto deberán recorrer las rutas de acceso lo más distante posible de los planteles donde se encuentran realizando labores docentes y áreas clasificadas como zonas de tranquilidad ("Quiet Zones").
14. Se cumplirá con la reglamentación vigente para las facilidades de estacionamiento.
15. Se proveerá en adición a lo requerido por el Reglamento un 10% de estacionamientos adicionales para ser utilizados por visitantes, los cuales deberán ser rotulados y dedicados a tales fines. 0/0
16. Se coordinará con la Autoridad de Carreteras y Transportación, en relación a las obras de carreteras y accesos al proyecto.

Los señalamientos anteriores se han hecho a base de la información disponible en estos momentos. No obstante, la Administración de Reglamentos y Permisos podrá hacer requerimientos adicionales que sean necesarias en el futuro, bien sea por situaciones que se desconocen ahora o imprevistas que pudieran surgir durante el desarrollo del proyecto en sus distintas etapas.

A base de las Determinaciones de Hechos y Conclusiones de Derecho y tomando en consideración lo anteriormente expuesto, en virtud de las disposiciones de las leyes, reglamentos y normas de planificación vigentes, esta Junta de Planificación de Puerto Rico **APRUEBA** la Consulta Número 97-17-0566-JPU, para la ubicación de un proyecto residencial multifamiliar en el Barrio Cupey del Municipio de Río Piedras.

DISPONIENDOSE que: (1) la acción tomada por esta Junta sobre la consulta no implica la aprobación de la etapa subsiguiente correspondiente, la cual deberá someterse a la consideración de la Administración de Reglamentos y Permisos dentro del período de vigencia de este informe; (2) esta aprobación tendrá una vigencia de un (1) año a partir de la fecha de notificación de este informe; (3) de no someterse la etapa subsiguiente en la Administración de Reglamentos y Permisos dentro del término de vigencia establecido la consulta quedará AUTOMATICAMENTE ARCHIVADA para todos los efectos legales; (4) se dispone que, cualquier cambio en la cabida de los terrenos como resultado de una revisión de la mensura, que se mantenga dentro de un 5% de la cabida informada en la presente consulta, se podrá corregir en los planos correspondientes sin que medie una resolución expresa de esta Junta a tales fines.



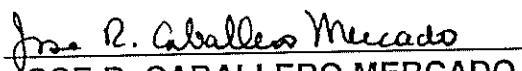
CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

DISPONIÉNDOSE, que cualquier parte afectada por esta Resolución podrá radicar una **Moción o Solicitud de Reconsideración** en la Secretaría de esta Junta dentro de un término de veinte (20) días contados a partir del archivo en autos de la notificación de esta Resolución. El solicitante deberá enviar copia de tal escrito por correo certificado y acuse de recibo a todas las partes que hayan intervenido en los procedimientos y a la Administración de Replamentos y Permisos. Los interventores tendrán diez (10) días naturales contados a partir de la notificación para expresarse sobre la Solicitud de Reconsideración. Si no lo hicieren dentro del término establecido, se entenderá que renuncian a su derecho de réplica.

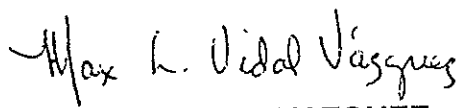
La Junta dentro de los quince (15) días de haberse presentado dicha Solicitud de Reconsideración deberá considerarla. Si la rechazare de plano o no actuare dentro de los quince (15) días, el término para solicitar recurso de Revisión Judicial comenzará a correr nuevamente desde que se notifique dicha denegatoria o desde que expiren esos quince (15) días, según sea el caso. Si la Junta acoge la Solicitud de Reconsideración deberá resolver la misma dentro de los noventa (90) días siguientes a la radicación de dicha solicitud. El término de treinta (30) días para solicitar Revisión Judicial comenzará a contarse desde la fecha en que se archiva en autos una copia de la notificación de la Resolución de la Junta resolviendo definitivamente la Solicitud de Reconsideración, cuya resolución deberá ser emitida y archivada en autos.

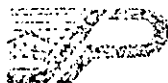
Si la Junta dejare de tomar alguna acción con relación a la Solicitud de Reconsideración dentro de los noventa (90) días de haber sido acogida bajo estudio, perderá jurisdicción sobre la misma y el término para solicitar la Revisión Judicial empezará a contarse a partir de la expiración de dicho término de noventa (90) días, salvo que la Junta, por justa causa y dentro de esos noventa (90) días prorrogue el término para resolver por un período que no excederá de treinta (30) días adicionales.

De no optarse por el procedimiento de Solicitud de Reconsideración antes expuesto, la parte afectada podrá, dentro del término de treinta (30) días, contados a partir de la fecha del archivo en autos de esta Resolución, de así interesarlo, presentar Recurso de Revisión Judicial ante el Tribunal de Circuito de Apelaciones, lo anterior, en virtud de lo dispuesto en la Sección 3.15 de la Ley Núm. 170 del 12 de agosto de 1988, según enmendada.


JOSE R. CABALLERO MERCADO
 Presidente

CERTIFICO: Que la anterior es copia fiel y exacta de la Resolución adoptada y emitida en la consulta de epígrafe por la Junta de Planificación de Puerto Rico, en su reunión celebrada el día 12 de enero de 2000, y para uso general y para su conocimiento y acción pertinente archivo en autos y le notifico a las partes la presente copia bajo mi firma y sello oficial de esta Junta en San Juan, Puerto Rico, hoy 14 ENE. 2000


MAX L. VIDAL VAZQUEZ
 Secretario



ESTADO LIBRE ASOCIADO DE PUERTO RICO
 OFICINA DEL GOBERNADOR
 JUNTA DE PLANIFICACION

GOBIERNO DE PUERTO RICO
Oficina del Gobernador
JUNTA DE PLANIFICACION

9 de marzo de 2000

Cuarta Extensión a la
Consulta Número 97-17-0566-JPU

RESOLUCION

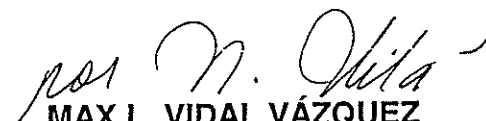
Esta Junta de Planificación de Puerto Rico, en su reunión del 12 de enero de 2000, aprobó la Consulta Número 97-17-0566-JPU, sobre la ubicación de un proyecto residencial multifamiliar en una finca con cabida de 51.54 cuerdas que radica en la Carretera Estatal Número 844, kilómetro 4.0 en el Barrio Cupey del Municipio de Río Piedras. Dichos terrenos están comprendidos dentro de un Distrito R-1, según el Mapa de Zonificación de San Juan vigente.

Se autorizó el desarrollo de un proyecto residencial multifamiliar que consiste de 680 unidades de vivienda distribuidas en 540 unidades tipo casa jardín (walk-up-walk-down) y 140 unidades tipo casas hilera (town house). Por error involuntario en la Resolución correspondiente al acuerdo de la Junta de Planificación del 12 de enero de 2000 se indicó que el número de unidades autorizadas eran 707.

Tomando en consideración lo anteriormente expuesto, en virtud de las disposiciones de la Ley Número 75 del 24 de junio de 1975, según enmendada, esta Junta de Planificación de Puerto Rico, mediante la presente Extensión, **ACLARA PARTICULARES CON CARÁCTER NUNC PRO TUNC** a la Consulta Número 97-17-0566-JPU, a los efectos de indicar que el número de unidades autorizadas es 680.


JOSE R. CABALLERO MERCADO
Presidente

CERTIFICO: Que la anterior es copia fiel y exacta de la Resolución adoptada y emitida en la consulta de epígrafe por la Junta de Planificación de Puerto Rico, en su reunión celebrada el 9 de marzo de 2000, y para uso general y para su conocimiento y acción pertinente archivo en autos y le notifico a las partes la presente copia bajo mi firma y sello oficial de esta Junta en San Juan, Puerto Rico, hoy 28 MAR 2000


MAX L. VIDAL VÁZQUEZ
Secretario



ESTADO LIBRE ASOCIADO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE PLANIFICACION

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Oficina de la Gobernadora
JUNTA DE PLANIFICACION

18 de junio de 2001

Quinta Extensión a la
Consulta Número 1997-17-0566-JPU

RESOLUCION

La Junta de Planificación, en su reunión del 12 de enero de 2000, aprobó la Consulta Número 1997-17-0566-JPU sobre la ubicación de un proyecto residencial multifamiliar en una finca con cabida 51.54 cuerdas. La misma radica en la Carretera Estatal Número 844, kilómetro 4.0, en el Barrio Cupey en el pueblo de Río Piedras del Municipio de San Juan. Dichos terrenos están comprendidos dentro de un Distrito R-1, según el Mapa de Zonificación de San Juan vigente.

Se autorizó el desarrollo de un proyecto residencial multifamiliar que consiste de 680 unidades de vivienda distribuidas en 540 unidades tipo casa jardín (Walk-up) y 140 unidades tipo casa hileras (town houses).

Ahora la parte proponente, Dames & Moore Lebrón LLP, mediante comunicación fechada a 16 de mayo de 2001, solicita se enmiende la consulta autorizada a los fines de que se le permita eliminar las 140 unidades tipo casas en hileras (town houses), basándose en la topografía del terreno y las recomendaciones hechas en el Plan de Usos de Terrenos de la región Metropolitana de San Juan.

Dicha solicitud fue considerada por esta Junta de Planificación, quien después del debido análisis de los argumentos de la parte proponente, consideró razonable la petición formulada.

Tomando en consideración lo anteriormente expuesto, en virtud de las disposiciones de las leyes, reglamentos y normas de planificación vigentes, esta Junta de Planificación de Puerto Rico, mediante la presente Extensión, **AUTORIZA UNA ENMIENDA** según solicitado en la Consulta Número 1997-17-0566-JPU para la ubicación de un proyecto residencial multifamiliar en el Barrio Cupey del Municipio de San Juan.

DISPONIENDOSE que: (1) todas las otras partes del informe anterior, no alteradas por la presente Extensión, quedan en todo su vigor y efecto.

DISPONIENDOSE, que cualquier parte afectada por esta Resolución podrá radicar una **Moción o Solicitud de Reconsideración** en la Secretaría de esta Junta dentro de un término de veinte (20) días contados a partir del archivo en autos de la notificación de esta Resolución. El solicitante deberá enviar copia de tal escrito por correo certificado y acuse de recibo a todas las partes que hayan intervenido en los procedimientos y a la Administración de Reglamentos y Permisos. Los interventores tendrán diez (10) días naturales contados a partir de la notificación para expresarse sobre la Solicitud de Reconsideración. Si no lo hicieron dentro del término establecido, se entenderá que renuncian a su derecho de réplica.



Continuación: Consulta Número 1997-17-0566-JPU

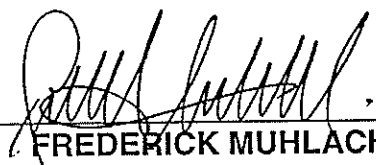
La Junta dentro de los quince (15) días de haberse presentado dicha Solicitud de Reconsideración deberá considerarla. Si la rechazare de plano o no actuare dentro de los quince (15) días, el término para solicitar recurso de Revisión Judicial comenzará a correr nuevamente desde que se notifique dicha denegatoria o desde que expiren esos quince (15) días, según sea el caso. Si la Junta acoge la Solicitud de Reconsideración deberá resolver la misma dentro de los noventa (90) días siguientes a la radicación de dicha solicitud. El término de treinta (30) días para solicitar Revisión Judicial comenzará a contarse desde la fecha en que se archiva en autos una copia de la notificación de la Resolución de la Junta resolviendo definitivamente la Solicitud de Reconsideración, cuya resolución deberá ser emitida y archivada en autos.

Si la Junta dejare de tomar alguna acción con relación a la Solicitud de Reconsideración dentro de los noventa (90) días de haber sido acogida bajo estudio, perderá jurisdicción sobre la misma y el término para solicitar la Revisión Judicial empezará a contarse a partir de la expiración de dicho término de noventa (90) días, salvo que la Junta, por justa causa y dentro de esos noventa (90) días prorrogue el término para resolver por un período que no excederá de treinta (30) días adicionales.

De no optarse por el procedimiento de Solicitud de Reconsideración antes expuesto, la parte afectada podrá, dentro del término de treinta (30) días, contados a partir de la fecha del archivo en autos de esta Resolución, de así interesarlo, presentar Recurso de Revisión Judicial ante el Tribunal de Circuito de Apelaciones, lo anterior, en virtud de lo dispuesto en la Sección 3.15 de la Ley Núm. 170 del 12 de agosto de 1988, según enmendada.

NOTIFIQUESE: A las partes cuyos nombres y direcciones se mencionan a continuación: Alturas del Bosque, S.E., 54 Bolivia Street, Suite 203, San Juan, P.R. 00918; Dames & Moore Lebrón LLP, 202 Tetuan Street, Old San Juan, P.R. 00901; Haydee Colón Cardona, RR-6 Box 9740, Río Piedras, P.R. 00926; Rosa Seijo, MSC 164 Box 6312, San Juan, P.R. 00926. Notifíquese además, copia de cortesía a las personas cuyos nombres y direcciones obran en el expediente administrativo.

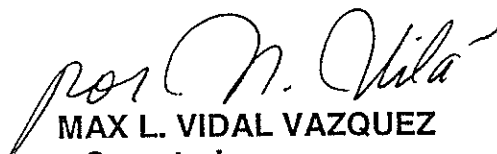
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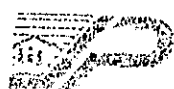


FREDERICK MUHLACH
 Presidente

CERTIFICO: Que he notificado copia fiel y exacta de la presente Resolución, bajo mi firma y el sello oficial de esta Junta, a las partes mencionadas en el Notifíquese, habiendo archivado el original en autos.

En San Juan, Puerto Rico, hoy **10 JUL 2001**


MAX L. VIDAL VAZQUEZ
 Secretario



ESTADO LIBRE ASOCIADO DE PUERTO RICO
 OFICINA DE LA GOBERNADORA
 JUNTA DE PLANIFICACION

Exhibit O

GOBIERNO DE PUERTO RICO
Oficina del Gobernador
JUNTA DE PLANIFICACION

12 de enero de 2000

Tercera Extensión a la
Consulta Número 97-17-0566-JPU

RESOLUCION

Lema Developers, por conducto del ingeniero Juan Ayguabibas, amparándose en la reglamentación vigente, sometió ante la consideración de esta Junta de Planificación la Consulta de Número 97-17-0566-JPU, para la ubicación de un proyecto residencial mixto en una finca con cabida de 51.54 cuerdas que radica en la Carretera Estatal Número 844, kilómetro 4.0, en el Barrio Cupey del Municipio de Río Piedras.

La Junta de Planificación, en su reunión del 26 de junio de 1997, dejó en suspenso la consulta por ciento veinte (120) días, para que la parte proponente sometiera una DIA-P.

El 28 de agosto de 1997, la Junta concedió sesenta (60) días adicionales a petición de la parte proponente para someter la información requerida.

Más tarde, la parte proponente, el 12 de diciembre de 1997, radicó una solicitud de enmienda al proyecto para aumentar el número de unidades.

Esta Junta de Planificación, en su reunión del 22 de enero de 1998, dejó en suspenso la consulta por sesenta (60) días adicionales para que la parte proponente sometiera la DIA-P en la que se discutiera el proyecto enmendado.

En consideración a la información obrante en el expediente sometida por la parte proponente, a la información obtenida por la Junta de sus documentos de referencia, tales como, pero sin limitarse a éstos: mapas topográficos, mapas de zonificación vigentes, mapas de zonas susceptibles a inundaciones, estudio de suelos del Servicio de Conservación de Suelos Federal y archivo gráfico, esta Junta llega a las siguientes:

DETERMINACIONES DE HECHOS

1. Se propone el desarrollo de un proyecto residencial multifamiliar que consiste de 707 unidades de vivienda distribuidas en 541 apartamentos tipo "garden apartments" y 234 unidades tipo "town houses".
2. La finca en que se propone el proyecto está delimitada por el Norte, con terrenos propiedad del señor Víctor Fernández; por el Sur, con terrenos propiedad de los señores Sinforoso Castro y Eduardo Fernández; por el Este, con terrenos propiedad de los señores Florencio Pérez y Adrian Betacourt.
3. Las agencias consultadas se expresaron como sigue:
 - a. La Autoridad de Acueductos y Alcantarillados, mediante comunicación del 19 de diciembre de 1999, informa que en el sector donde se pretende ubicar la propuesta, existen las facilidades de acueducto y alcantarillado sanitario; no obstante, la parte proponente deberá mejorar los sistemas existentes para poder servir a su proyecto.

CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

Posteriormente en carta del 23 de abril de 1999, la Compañía de Aguas de Puerto Rico, informa que el proponente deberá realizar una consulta oficial a la Región Metro a fin de determinar la forma más eficiente de prestar sus servicios de agua y alcantarillado.

- b. La Autoridad de Energía Eléctrica, mediante comunicación fechada a 29 de diciembre de 1997, realizó una evaluación del proyecto y le indicó al proyectista sus reponsabilidades. //

- c. La Autoridad de Carreteras y Transportación, mediante comunicación fechada a 17 de diciembre de 1997, informa y citamos:

"Se deberá consultar al Negociado de Planes de Usos de Terrenos de esa Junta con relación a la Calle Principal Periferal Sur que según el Plan Vial para la Región Metropolitana de San Juan discurre por la colindancia Norte del desarrollo." //

La construcción de la referida calle principal será por los desarrolladores del proyecto o por el municipio.

Si embargo, debido a la magnitud del proyecto propuesto se deberá preparar un estudio en donde se evalúen las condiciones del tránsito presente y futuro en su sector de influencia y se determine el impacto que este tendrá en el sistema vial que servirá al mismo. Se deberá considerar en el análisis de tránsito a realizarse el efecto de otros desarrollos propuestos en el área como también la necesidad de la instalación de un sistema de semáforos en dicho sector."

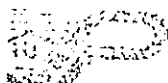
Como parte del documento ambiental preparado para el caso se realizó el correspondiente estudio de tránsito el cual fue referido a la Autoridad de Carreteras y Transportación: para la evaluación correspondiente.

- d. El Departamento de Recursos Naturales y Ambientales, mediante comunicación fechada a 23 de diciembre de 1997, informa y citamos:

"Hacemos referenica a su comunicación donde solicita nuestras recomendaciones en relación con el proyecto residencial Vistas Reales en el Barrio Cupey de Río Piedras.

Debido a que a través de los terrenos discurre una quebrada, se deberá dedicar a uso público una faja de terreno, comprendida por el cause de la quebrada que atraviesa los terrenos, más una franja adicional de cinco (5) metros de ancho a ambos lados de dicho cuerpo de agua y medida desde el borde del cause de la misma. //

En donde se propone la formación de taludes, si alguno, en colindancia con la quebrada, la base de los mismos descansará fuera la faja de terreno de dicha quebrada. Además, se tomarán en consideración la estabilidad de los taludes y la protección de los mismos contra la erosión.



CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

Para cualquier obra de construcción sobre la quebrada, el proponente deberá someter en etapa subsiguiente los planos y los cómputos hidrológicos hidráulicos que determinarían el diseño de la obra. Dichos cómputos deberán estar basados en una tormenta con un período de recurrencia de cien (100) años.

Se deberá coordinar con el Programa de Reforestación Urbana y Rural del Negociado de Bosques de este Departamento para la poda de la vegetación existente o siembra.

Para el movimiento de terreno, deberá obtener un Permiso de Extracción de Material de la Corteza Terrestre de este Departamento.

Deberá obtener de la Junta de Calidad Ambiental un Plan para el Control de Erosión y Sedimentación (Plan CES) para minimizar la erosión hacia la Quebrada Los Guanos y los otros cuerpos de agua existentes en el lugar.

Cumpliendo con lo antes expuesto, el Departamento de Recursos Naturales y Ambientales no tiene objeción a la etapa de ubicación del proyecto propuesto."

- e. El Instituto de Cultura Puertorriqueña, mediante comunicación fechada a 22 de abril de 1999, informa que la Evaluación Arqueológica Fase IA realizada cumple adecuadamente con ese tipo de investigación arqueológica y que en la continuación de los estudios arqueológicos reglamentarios se debe proseguir con la siguiente etapa de investigación a nivel de la Fase IB.

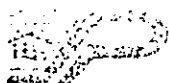
- f. El Gobierno Municipal de San Juan, mediante comunicación fechada a 9 de noviembre de 1999, presentó objeción al proyecto por que el desarrollo no armoniza con otros desarrollos aledaños por suponer una alteración sustancial de los rasgos naturales y topográficos del área, y porque estos terrenos están dentro del área objeto de la solicitud de Moratoria que hiciera el Municipio a la Junta de Planificación.

- g. El Departamento de Agricultura, mediante comunicación fechada a 3 de junio de 1999, informa que no objeta el uso propuesto e informa lo siguiente:

Los suelos de ésta finca pertenecen a la Serie Múcara arcilloso, con declive de 20-40% y capacidad para uso agrícola VIe.

Estos suelos son moderadamente profundos, inclinados y de buen drenaje. La permeabilidad es moderada y la capacidad de retención de agua baja. El escurrimiento es rápido y son susceptibles a erosión. Además, son suelos difíciles de trabajar por su inclinación, así como por la plasticidad y pegajosidad de su arcilla.

En visita realizada por un técnico de este Departamento a la finca objeto de consulta, se pudo observar que la misma se encuentra en pastos, barbecho y bosque. En la misma



existe una cisterna de la Autoridad de Acueductos y Alcantarillados. En su periferia inmediata no se observan proyectos agrícolas. El sector es uno de considerable desarrollo residencial.

Del estudio y análisis del documento presentado con esta propuesta, se desprende que el referido proyecto no afectará terrenos de alto potencial agrícola.

- h. El Departamento de Salud, mediante comunicación fechada a 4 de junio de 1999, informa que no tiene objeción al proyecto y emite sus requerimientos.
- i. La Autoridad de Desperdicios Sólidos, en carta del 20 de abril de 1999, informa que la acción propuesta no conflige con la política pública de esa Autoridad en cuanto al manejo y disposición de los residuos sólidos y emite una serie de requerimientos.
4. La Junta de Calidad Ambiental, mediante Resolución y Notificación (R-99-42-3) sobre DIA-JCA-99-0016 (JP) Proyecto Residencial Vistas Reales del 2 de diciembre de 1999, resolvió que la Declaración de Impacto Ambiental preparada cumple con todos los requisitos de ley y reglamento y con lo solicitado mediante carta del 5 de agosto de 1999. Por tal razón la Junta de Gobierno de dicha Junta resolvió que la Junta de Planificación ha dado cumplimiento con el Artículo 4© de la Ley Sobre Política Pública Ambiental y con el Reglamento Sobre Declaraciones de Impacto Ambiental de la Junta de Calidad Ambiental (RDIA), dando así por terminado el proceso de evaluación del documento ambiental.
5. Mediante carta fechada a 30 de noviembre de 1999, suscrita por la señora Rosa Seijo los vecinos de Cupey expresan preocupación sobre el proyecto y solicitan que se deniege la consulta.
6. Mediante carta del 2 de noviembre de 1999, la Comisión de Ciudadanos al Rescate de Caimito Inc., representada por Haydee Colón Cardona, señala que de la lectura de la DIA del proyecto surgen interrogantes que necesita exponer posteriormente, en adición recoge parte de los argumentos que han presentado los vecinos de Cupey.

En armonía con las anteriores determinaciones de hechos se llega a las siguientes:

CONCLUSIONES DE DERECHO

1. Los terrenos objeto de consulta están comprendidos dentro de un Distrito R-1, según el Mapa de Zonificación de San Juan vigente y ubican en Zona de Transición según el Plan de Usos de Terrenos de la Región Metropolitana de San Juan vigente.
2. El Reglamento de Zonificación de Puerto Rico (Reglamento de Planificación Número 4) con vigencia del 16 de septiembre de 1992, en el Tópico 12, Sección 97.02 faculta a la Junta para considerar proyectos de desarrollos residenciales extensos sujetos a las limitaciones y alcances establecidos en dicho Reglamento, entre las que se incluye el que esté disponible o pueda proveerse la infraestructura necesaria para atender el proyecto, que se provea el estacionamiento requerido y que este conforme con el Plan de Usos de Terrenos hasta donde ese haya sido estudiado y analizado.

CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

El proyecto propuesto cumple con los criterios establecidos anteriormente.

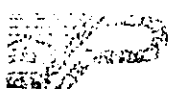
3. La parte propuesta ha sido sometida de acuerdo a lo establecido en el Reglamento para Procedimientos Adjudicativos de la Junta de Planificación, según enmendado.
4. La Ley Orgánica de la Junta de Planificación, Ley Número 75 del 24 de junio de 1975, según enmendada, en el Artículo 11, Inciso 14, autoriza expresamente a la Junta a "hacer determinaciones sobre usos de terrenos dentro de los límites territoriales del Estado Libre Asociado de Puerto Rico, con sujeción a las normas y requisitos consignados en esta ley o cualquier otra ley aplicable para tales casos."

ACUERDO

Esta consulta de ubicación ha sido examinada y analizada por esta Junta a la luz de la información suministrada por el Proponente, de las disposiciones de leyes, reglamentos y normas de planificación vigentes, y del resultado del estudio desde el punto de vista ambiental. También se ha dado consideración a las proyecciones poblacionales y a la disponibilidad de terrenos apropiados para la construcción de viviendas y otros usos en el área que comprende el proyecto propuesto.

La consulta fue considerada por esta Junta de Planificación, quien acordó que es viable el desarrollo de los terrenos anteriormente descritos para el uso propuesto, condicionado a los siguientes señalamientos y recomendaciones, los cuales habrán de tomarse en consideración al prepararse y someterse en la próxima etapa en el trámite del proyecto, etapa que será determinada por la Administración de Reglamentos y Permisos.

1. Se autoriza un proyecto residencial multifamiliar que consiste de 707 unidades de vivienda distribuidas en 541 apartamentos tipo "garden apartments" y 234 unidades tipo "town houses".
2. Se cumplirá con los requerimientos de las agencias concernidas.
3. Lo demás parámetros de diseño corresponderán a un Distrito R-3.
4. Cumplirá con las medidas de mitigación contenidas en la Declaración de Impacto Ambiental preparada para el proyecto.
5. La Administración de Reglamentos y Permisos determinará cuál será la próxima etapa en el trámite del proyecto, la cual deberá cumplir con todas las disposiciones de leyes, reglamentos y normas de planificación vigentes y aplicables, así como con las normas de dicha Administración.
6. Se cumplirá con las disposiciones del Reglamento de Planificación Número 25, Reglamento de Siembra, Corte y Forestación para Puerto Rico, vigente.
7. En la próxima etapa ante la Administración de Reglamentos y Permisos, se deberán implantar las medidas de mitigación contenidas en el Estudio Geotécnico preparado.
8. Se deberá incluir un sistema para controlar las escorrentías generadas por el proyecto hacia el Río Piedras.



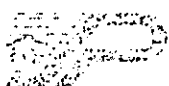
CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

9. El movimiento de tierra a llevarse a cabo deberá mantener los rasgos topográficos lo más posible y limitarse el mismo a la porción de terreno que se considere en la aprobación del plano de construcción. Durante esta etapa se deberá mantener el área húmeda para evitar la generación de polvo fugitivo.
10. Se depositarán los desechos de materiales de construcción en vertederos autorizados por la Junta de Calidad Ambiental.
11. Se mantendrán los camiones de carga que se utilicen para transportar material de relleno y/o de construcción cubiertos mientras estén en movimiento para evitar generación de materia particulada.
12. Se observará el período de operación que establece el Reglamento para la Prevención y el Control de la Contaminación por Ruido para actividades de construcción de esta naturaleza.
13. Los vehículos y maquinaria a utilizarse en el proyecto deberán recorrer las rutas de acceso lo más distante posible de los planteles donde se encuentran realizando labores docentes y áreas clasificadas como zonas de tranquilidad ("Quiet Zones").
14. Se cumplirá con la reglamentación vigente para las facilidades de estacionamiento.
15. Se proveerá en adición a lo requerido por el Reglamento un 10% de estacionamientos adicionales para ser utilizados por visitantes, los cuales deberán ser rotulados y dedicados a tales fines. 0/0
16. Se coordinará con la Autoridad de Carreteras y Transportación, en relación a las obras de carreteras y accesos al proyecto.

Los señalamientos anteriores se han hecho a base de la información disponible en estos momentos. No obstante, la Administración de Reglamentos y Permisos podrá hacer requerimientos adicionales que sean necesarias en el futuro, bien sea por situaciones que se desconocen ahora o imprevistas que pudieran surgir durante el desarrollo del proyecto en sus distintas etapas.

A base de las Determinaciones de Hechos y Conclusiones de Derecho y tomando en consideración lo anteriormente expuesto, en virtud de las disposiciones de las leyes, reglamentos y normas de planificación vigentes, esta Junta de Planificación de Puerto Rico **APRUEBA** la Consulta Número 97-17-0566-JPU, para la ubicación de un proyecto residencial multifamiliar en el Barrio Cupey del Municipio de Río Piedras.

DISPONIENDOSE que: (1) la acción tomada por esta Junta sobre la consulta no implica la aprobación de la etapa subsiguiente correspondiente, la cual deberá someterse a la consideración de la Administración de Reglamentos y Permisos dentro del período de vigencia de este informe; (2) esta aprobación tendrá una vigencia de un (1) año a partir de la fecha de notificación de este informe; (3) de no someterse la etapa subsiguiente en la Administración de Reglamentos y Permisos dentro del término de vigencia establecido la consulta quedará AUTOMATICAMENTE ARCHIVADA para todos los efectos legales; (4) se dispone que, cualquier cambio en la cabida de los terrenos como resultado de una revisión de la mensura, que se mantenga dentro de un 5% de la cabida informada en la presente consulta, se podrá corregir en los planos correspondientes sin que medie una resolución expresa de esta Junta a tales fines.



ESTADO LIBRE ASOCIADO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE PLANIFICACION

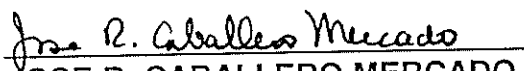
CONTINUACIÓN: CONSULTA NÚMERO 97-17-0566-JPU

DISPONIÉNDOSE, que cualquier parte afectada por esta Resolución podrá radicar una **Moción o Solicitud de Reconsideración** en la Secretaría de esta Junta dentro de un término de veinte (20) días contados a partir del archivo en autos de la notificación de esta Resolución. El solicitante deberá enviar copia de tal escrito por correo certificado y acuse de recibo a todas las partes que hayan intervenido en los procedimientos y a la Administración de Replamentos y Permisos. Los interventores tendrán diez (10) días naturales contados a partir de la notificación para expresarse sobre la Solicitud de Reconsideración. Si no lo hicieren dentro del término establecido, se entenderá que renuncian a su derecho de réplica.

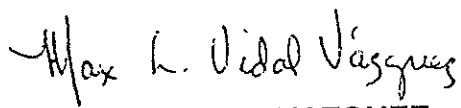
La Junta dentro de los quince (15) días de haberse presentado dicha Solicitud de Reconsideración deberá considerarla. Si la rechazare de plano o no actuare dentro de los quince (15) días, el término para solicitar recurso de Revisión Judicial comenzará a correr nuevamente desde que se notifique dicha denegatoria o desde que expiren esos quince (15) días, según sea el caso. Si la Junta acoge la Solicitud de Reconsideración deberá resolver la misma dentro de los noventa (90) días siguientes a la radicación de dicha solicitud. El término de treinta (30) días para solicitar Revisión Judicial comenzará a contarse desde la fecha en que se archiva en autos una copia de la notificación de la Resolución de la Junta resolviendo definitivamente la Solicitud de Reconsideración, cuya resolución deberá ser emitida y archivada en autos.

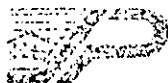
Si la Junta dejare de tomar alguna acción con relación a la Solicitud de Reconsideración dentro de los noventa (90) días de haber sido acogida bajo estudio, perderá jurisdicción sobre la misma y el término para solicitar la Revisión Judicial empezará a contarse a partir de la expiración de dicho término de noventa (90) días, salvo que la Junta, por justa causa y dentro de esos noventa (90) días prorrogue el término para resolver por un período que no excederá de treinta (30) días adicionales.

De no optarse por el procedimiento de Solicitud de Reconsideración antes expuesto, la parte afectada podrá, dentro del término de treinta (30) días, contados a partir de la fecha del archivo en autos de esta Resolución, de así interesarlo, presentar Recurso de Revisión Judicial ante el Tribunal de Circuito de Apelaciones, lo anterior, en virtud de lo dispuesto en la Sección 3.15 de la Ley Núm. 170 del 12 de agosto de 1988, según enmendada.


JOSE R. CABALLERO MERCADO
 Presidente

CERTIFICO: Que la anterior es copia fiel y exacta de la Resolución adoptada y emitida en la consulta de epígrafe por la Junta de Planificación de Puerto Rico, en su reunión celebrada el día 12 de enero de 2000, y para uso general y para su conocimiento y acción pertinente archivo en autos y le notifico a las partes la presente copia bajo mi firma y sello oficial de esta Junta en San Juan, Puerto Rico, hoy 14 ENE. 2000


MAX L. VIDAL VAZQUEZ
 Secretario



ESTADO LIBRE ASOCIADO DE PUERTO RICO
 OFICINA DEL GOBERNADOR
 JUNTA DE PLANIFICACION

Exhibit P

**Ensueño
San Juan, Puerto Rico**

Farmland Protection Policy Act

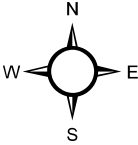
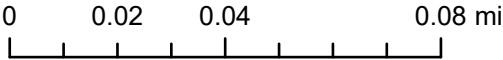
Not Applicable. Project is not located on or near a farmland.

Farmlands



Legend

-  Parcels
-  Prime Farmland
-  Farmland of Local Importance
-  Farmland of Statewide Importance
-  Farmland of Unique Importance
-  Not Prime Farmland



Source: ESRI and USDA

USGS Map Viewer

Search for locations

Add data

Your workbench is empty

Click 'Add data' above to:

- Browse the Data Catalogue
- Load your own data onto the map

TIP: All your active data sets will be listed here

Lat 18.34389°N Lon 66.07457°W Elev 1000 ft

Story

Map

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Related Maps

About

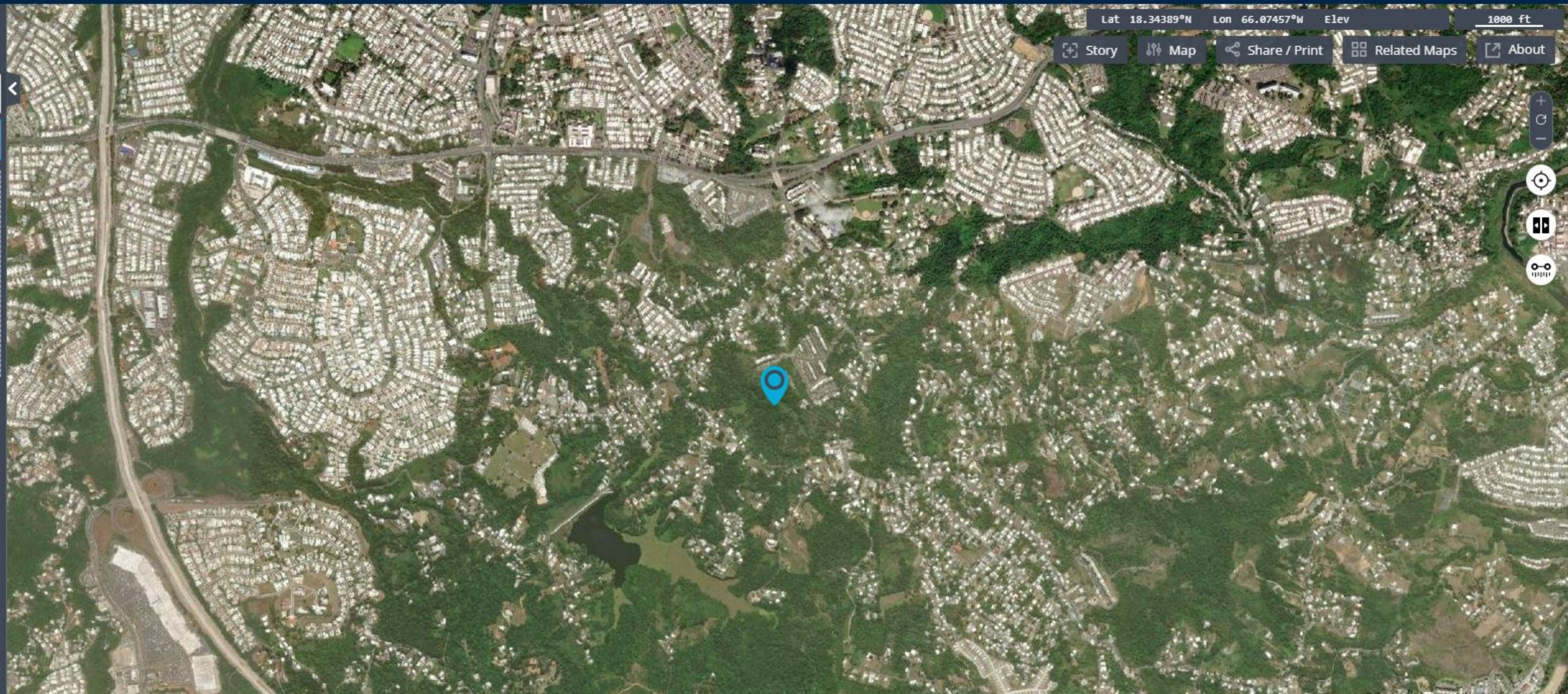


Exhibit Q



Miguel A. Romero-Lugo

May 17, 2021

Mr. Ernesto Rodríguez Alzugaray
Authorized Representative
TFS Housing LLC
442 César González St.
San Juan, P.R. 00918

RE: MAYOR ENDORSEMENT LETTER NEW CONSTRUCTION AFFORDABLE HOUSING PROJECT ENSUEÑO – MUNICIPALITY OF SAN JUAN

Dear Mr. Rodríguez Alzugaray:

We received your letter regarding the pre-development stage for the construction of a low-income housing project, *Ensueño* (the “Project”), on a vacant site comprised of 30 acres located on road PR-844 Km. 4.0, Cupey ward in the Municipality of San Juan.

As described, the proposed project will be developed under Section 42 of the federal Internal Revenue Code, which created the federal Low-Income Housing Tax Credit Program (“LIHTC”), and the Community Development Block Grant-Disaster Relief (“CDBG-DR”), along with a combination of local, state, and federal resources that may be available.


After an evaluation of the proposed development, and based upon the needs of low-income families and single headed families in our municipality, we conclude that the Project is a valuable development for the Municipality of San Juan because, it:

- 1) Promotes family and neighborhood stabilization.
- 2) Is conveniently located near main roads, healthcare, police station, entertainment and commercial facilities, public and private transportation hubs, among other amenities.
- 3) Will add to the affordable rental housing inventory 89 units; each with 3-bedroom units, and each with 2-bathroom, kitchen, and living-room area.



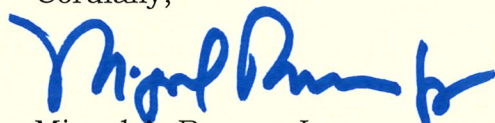
PO Box 9024-100 San Juan, Puerto Rico 00902-4100

Phone: (787) 524-2500 | mromero@sanjuan.pr

- 
- 4) Meets the needs of a special population, eligible single headed households.
 - 5) The Project's construction includes green building initiatives, broadband infrastructure, and common areas and units will include energy efficiency equipment and appliances.
 - 6) The development will include common areas, facilities and amenities for the use and enjoyment of the tenants.
 - 7) Will comply with Housing Quality Standards (HQS), Section 504 Accessibility Standards, ADA and Fair Housing Act requirements: and
 - 8) Will address the need for low-income affordable housing in the municipality, (i) availability of safe, decent, and affordable rental housing for low-income single headed households, and (ii) makes available supportive services for the aforementioned population.

We endorse the development of the Project, as it complies with our Land Development Plan ("Plan de Ordenamiento Territorial") to revitalize the municipality's Monacillos sector. Given our share goal of ensuring safe, stable, and appropriate housing we support your efforts to develop *Ensueño* and, look forward to the opportunity to address the need effectively and sustainably for affordable housing in San Juan.

Cordially,



Miguel A. Romero-Lugo

Exhibit R

NOISE SURVEY REPORT

AT
“ENSUEÑO” PROJECT
SAN JUAN, P.R.



Physical Address:

Villa Blanca Industrial Park
Plaza Bairoa Suite 215
Caguas, P.R. 00725
www.sharetechgroup.com

July 1, 2019

Carlos O. Gonzalez Sanchez PE, MBA, ESQ
TFS Housing, LLC
"Ensueño" Project
PR-844 km 4.0 Cupey Ward
San Juan, P.R.
Email: cgonzalez@cogpr.com
Phone: 787-296-2323

RE: Environmental Noise Survey for "Ensueño" Project at San Juan, P.R. (PO #: Signed Proposal)

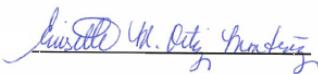
Dear Mr. Gonzalez,

Enclosed please find professional consulting services report for subject environmental noise survey conducted at the "Ensueño" Project in San Juan, P.R., on June 11, 2019.

We appreciate the opportunity to service you and look forward to continuing supporting TFS Housing, LLC in the near future.

If you have any questions, do not hesitate to contact us.

Sincerely,



Enisette Ortiz
EHS Coordinator

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EXECUTIVE SUMMARY

This report summarizes the results obtained from environmental noise survey conducted at "Ensueño" Project on San Juan, P.R. (See figure #1 for location) during June 11, 2019.



Figure #1- Survey Location (Satellite Photo)

The results from this survey are summarized on Table #2. The interpretation of the results is presented on page 16, and the conclusions and recommendations on page 17.

The LDN represents the 24 hours average sound level. For daytime period the Time – Weighted Average LDN is 67.3 dB. For nighttime period the Time – Weighted Average LDN is 73.7 dB.

Based on the data collected during the noise survey at daytime and nighttime, the Calculated Time – Weighted LDN Average _{24 hours} is 69.7 dB reveal a LDN level normally unacceptable under the HUD criteria as these are higher than the HUD 65 decibels Acceptability Standard.

INTRODUCTION

ShareTech Group was contracted by TFS Housing, LLC on May 21, 2019 to perform a limited and specific-scope noise survey during day and night periods at their project located at PR-844 km 4.0, Cupey Ward in the municipality of San Juan. The study was carried out to measure the noise levels at selected locations at the perimeter of the "Ensueño" Project to confirm compliance with the established HUD Noise criteria (24 CFR 51).

HUD defines the day period with hours in a range between 7:01 am and 10:00 pm and the night period in a range between 10:01 pm until 7:00 am. Refer to Table I on next page for the HUD noise criteria.

This study was carried out considering the Environmental Quality Board (EQB) regulatory requirements. Results were compared with the EQB established noise limits during night and day periods based on the residential nature of the buildings in the area. Day and night periods for environmental noise control limits are defined in the Puerto Rico's Environmental Quality Board (EQB) Noise Control Regulation, refer to Table III on Appendix 6 referenced from said regulation.

The area under study is classified as Mucara Clay (MxE), as established by the Puerto Rico Planning Board, known in Spanish as "Junta de Planificación". Table I on the next page shows the HUD Site Acceptability Standards for Day – Night Average Sound Level in decibels. An exterior noise level of 65 dB or lower is considered acceptable by HUD.

The HUD exterior noise standards refer to the degree of acceptability of the noise environment at the site. Noise environment is determined by the additional sound levels of those generated by buildings or other facilities containing noise sensitive uses.

The standards shall usually apply at a location 2 meters (6.5 feet) from the building housing noise sensitive activities in the direction of the predominant noise source. Where the building location is undetermined, the standards shall apply 2 meters (6.5 feet) from the building setback line nearest to the predominant noise source. The standards shall also apply at other locations where it is determined that quite outdoor space is required in an area ancillary to the principal use on the site. The "Ensueño" project site is undeveloped, full of vegetation and without access to the interior. The survey was taken at the north perimeter, adjacent to PR-844 km 4.0.

As stated in 24 CFR 51, the noise environment inside a building is considered acceptable if: (i) The noise environment external to the building complies with these standards, and (ii) the building is constructed in a manner common to the area or, if of uncommon construction, has at least the equivalent noise attenuation characteristics.

Under HUD, the Site Acceptability Standards for Day – Night sound level (in decibels) is presented below:

Table #I – HUD Site Acceptability Standards

Acceptable or Unacceptable	Day-night average sound level (in decibels)	Special approvals and requirements
Acceptable	Not exceeding 65 dB (1)	None.
Normally Unacceptable	Above 65 dB but not exceeding 75 dB	Special Approvals (2)
		Environmental Review (3).
		Attenuation (4).
Unacceptable	Above 75 dB	Special Approvals (2).
		Environmental Review (3).
		Attenuation (5).

Notes:

- (1) Acceptable threshold may be shifted to 70 dB in special circumstances pursuant to §51.105(a).
- (2) See §51.104(b) for requirements.
- (3) See §51.104(b) for requirements.
- (4) 5 dB additional attenuation required for sites above 65 dB but not exceeding 70 dB and 10 dB additional attenuation required for sites above 70 dB but not exceeding 75 dB. (See §51.104(a).)
- (5) Attenuation measures to be submitted for approval on a case-by-case basis.

This report includes the results of the noise levels during the daytime period as well as during the nighttime period.

METHODOLOGY & EQUIPMENT

The noise survey was conducted in accordance to the requirements under HUD 24 CFR 51 and by EQB's Noise Pollution Control Regulation entitled "Reglamento para el Control de la Contaminación de Ruido" Appendix 1. The following tasks were performed as part of this survey:

Task 1) As stated earlier, the noise survey was also conducted in accordance to the requirements of EQB's Noise Pollution Control Regulation entitled "*Reglamento para el Control de la Contaminación de Ruido*" and with *HUD Noise criteria (Appendix 1) as stated under 24 CFR 51* using two (2) calibrated sound level meters under the required American National Standards Institute (ANSI) Specifications. Two 3M Sound Pro Series DL Sound Level Meters were used to carry out this study.

The noise survey was conducted during the late evening and early night periods at hours considered within both, the HUD and EQB daytime and nighttime regulatory definition on Tuesday, June 11, 2019. Four (4) noise measurement locations were surveyed during the daytime and nighttime periods on that day. No rain events occurred during the noise survey.

The noise survey was carried out using two (2) calibrated sound level meters which meets the "American National Standards Institute" (ANSI) specification for Type 1, sound level meters on its latest revision (See Figure #2). For this noise survey, two (2) calibrated Sound Pro Series DL Sound Level Meters manufactured by 3M (Quest Technologies) were used. Refer to Appendix 3 for data on calibration of the sound level meter instruments. The instruments are equipped with software and data logger and generate the data used to prepare this report. The raw data is included under Appendix 4.



Figure #2- Sound Level Meter Photo

The sequence followed for conducting the noise survey is described below:

- The operating mode noise level measurements for the daytime period were started at around 08:18 p.m. and finished approximately 09:28 p.m. The EQB daytime noise period is encompassed between 7:00 a.m. and 10:00 p.m. Refer to table #II for details.
- The measurements for the nighttime period were started at around 10:01 p.m. and finished approximately 11:03 p.m. The EQB nighttime noise period is encompassed between 10:01 p.m. and 06:59 a.m. Refer to table #III for details.
- The sound level meters were calibrated pre and post the measurement using calibrator model AC-300. Refer to Appendix 2 for equipment calibration data.

The readings were collected using two (2) calibrated Sound Level Meters Model Sound-Pro DL:

- Meter 1 – Serial Number: BLN120003 (Calibrator serial number: AC300004643)
- Meter 2 – Serial Number: BLL100004 (Calibrator serial number: AC300001324)

The monitoring stations (MS) or locations of this noise survey at “Ensueño” Project perimeter are described in the table shown above. Refer to Figure #3 for these locations.

Table #II- Noise Survey Data Collected on Day Time Period

Sample	Monitoring Station (MS)	Time	Run Time	Description
1	1	08:18:58 pm	00:35:57	Located at the north side of the property, near to “Camino Tauque”.
2	2	08:18:24 pm	00:36:06	Located at the northeast side of the property, near to “Camino Tauque”.
3	3	08:55:56 pm	00:31:39	Located at the northeast side of the property, near to PR-844.
4	4	08:56:22 pm	00:31:43	Located at the northeast side of the property, near to PR-844.

Table #III- Noise Survey Data Collected on Nighttime Period

Sample	Monitoring Station (MS)	Time	Run Time	Description
1	1	10:01:48 pm	00:30:03	Located at the north side of the property, near to "Camino Tauque".
2	2	10:01:40 pm	00:30:03	Located at the northeast side of the property, near to "Camino Tauque".
3	3	10:33:09 pm	00:30:40	Located at the northeast side of the property, near to PR-844.
4	4	10:32:12 am	00:31:23	Located at the northeast side of the property, near to PR-844.



Figure #3- Monitoring Station Locations

The monitoring stations (MS) for daytime and nighttime period are described as:

- **Monitoring Station #1 (MS 1):** Located at the north side of the property, near to "Camino Tauque".
- **Monitoring Station #2 (MS 2):** Located at the northeast side of the property, near to "Camino Tauque".
- **Monitoring Station #3 (MS 3):** Located at the northeast side of the property, near to PR-844.
- **Monitoring Station #4 (MS 4):** Located at the northeast side of the property, near to PR-844.

***Note:** During the noise survey, there is low traffic flow along the surround streets, no people talking at neighborhood. See Appendix 4 for Field Notes.



Figure #4- Monitoring Stations #1 location (north side, near to "Camino Tauque")



Figure #5- Monitoring Stations #2 location (northeast side, near to "Camino Tauque")



Figure #6- Monitoring Stations #3 location (northeast area, near to PR-844).



Figure #7- Monitoring Stations #4 location (northeast side, near to PR-844).

Task 2) Preparation of Report - This report summarizes the results of the noise survey and was prepared for client use and discussions as they consider pertinent. Report includes findings, explanation of existing particular conditions during this noise survey, and interpretations of results, conclusions and recommendations, as applicable. **Appendix 3** includes the noise level measurements data and associated graphs as collected by the sound level meters, data logged and retrieved at the end of the study.

REPORT OF RESULTS

On June 11, 2019, a noise survey was performed during the day and night periods establish by EQB. No rain events occurred during the monitoring. The levels of this survey will be compared to the levels established on the regulation.

The detailed results of this survey are illustrated in Appendix 3. A summary was prepared using LDN values for each monitoring station. The LDN represents the day / night sound level, this measurement is a 24 – hour average sound level where 10 dB is added to all of the readings that occur between 10 pm and 7 am. The results of this survey are presented in tables #IV & V, and in figure #9.

Table #IV- Readings Recorded by the Sound Level Meters (Daytime Period)

Monitoring Stations (MS)	LDN
Monitoring Station 1	62.9 dB
Monitoring Station 2	67.7 dB
Monitoring Station 3	70.6 dB
Monitoring Station 4	67.8 dB
Average Daytime LDN	67.3 dB

Table #V- Readings Recorded by the Sound Level Meters (Nighttime Period)

Monitoring Stations (MS)	LDN
Monitoring Station 1	69.9 dB
Monitoring Station 2	75.1 dB
Monitoring Station 3	73.7 dB
Monitoring Station 4	76.0 dB
Average Nighttime LDN	73.7 dB

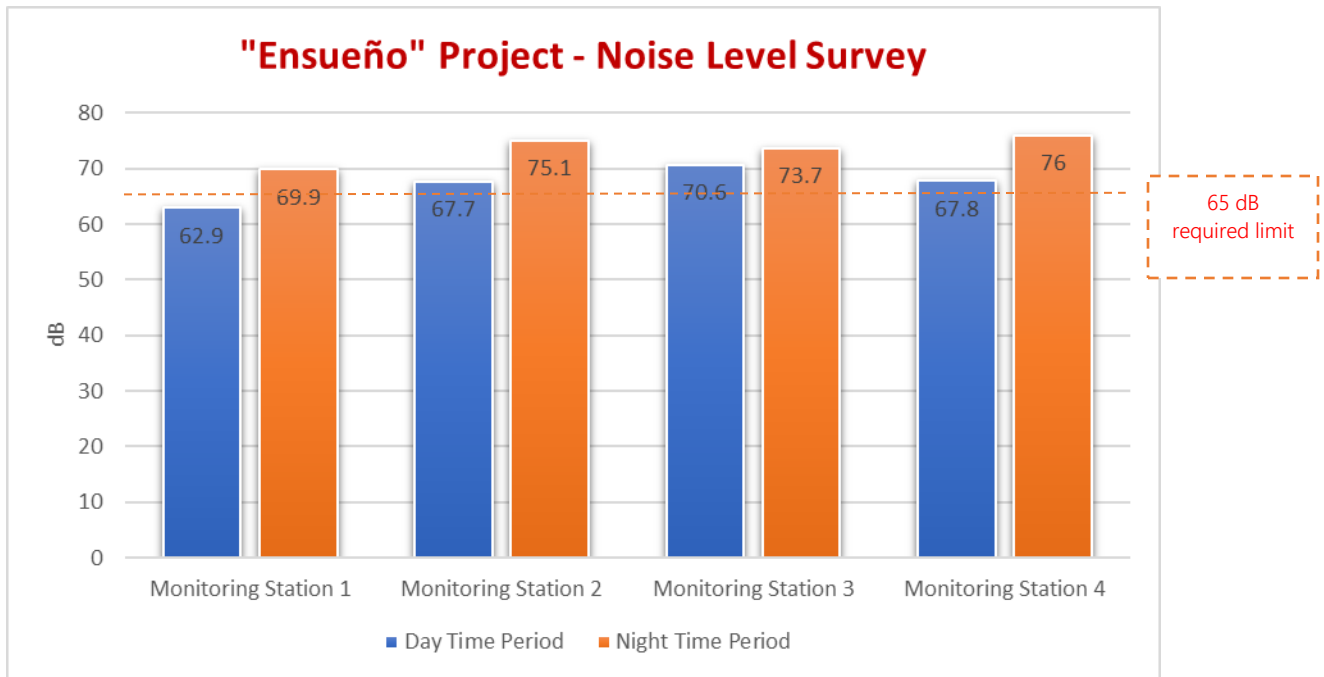


Figure #9 - Monitoring Stations LDN Values

A Calculated Time-Weighted Average for 24 hours is presented below:

$$\begin{aligned}
 \text{Weighted Average 24 hours} &= ((15/24) * \text{Daytime Period LDN}) + ((9/24) * \text{Nighttime Period LDN}) \\
 &= ((15/24) * 67.3 \text{ dB}) + ((9/24) * 73.7 \text{ dB}) \\
 &= 42.1 \text{ dB} + 27.6 \text{ dB}
 \end{aligned}$$

Calculated Time-Weighted LDN Average 24 hours = 69.7 dB

INTERPRETATION OF RESULTS

The EQB's Noise Pollution Control Regulation entitled "*Reglamento para el Control de la Contaminación de Ruido*" and HUD Noise criteria (Appendix 1) under 24 CFR 51 established the guidelines for an exterior noise level of 65 dB or lower is considered acceptable by HUD.

The LDN represents the 24 hours average sound level. For daytime period the Time – Weighted Average LDN is 67.3 dB. For nighttime period the Time – Weighted Average LDN is 73.7 dB.

Based on the data collected during the noise survey at daytime and nighttime, the Calculated Time – Weighted LDN Average _{24 hours} is 69.7 dB reveal a LDN level normally unacceptable under the HUD criteria as these are higher than the HUD 65 decibels Acceptability Standard.

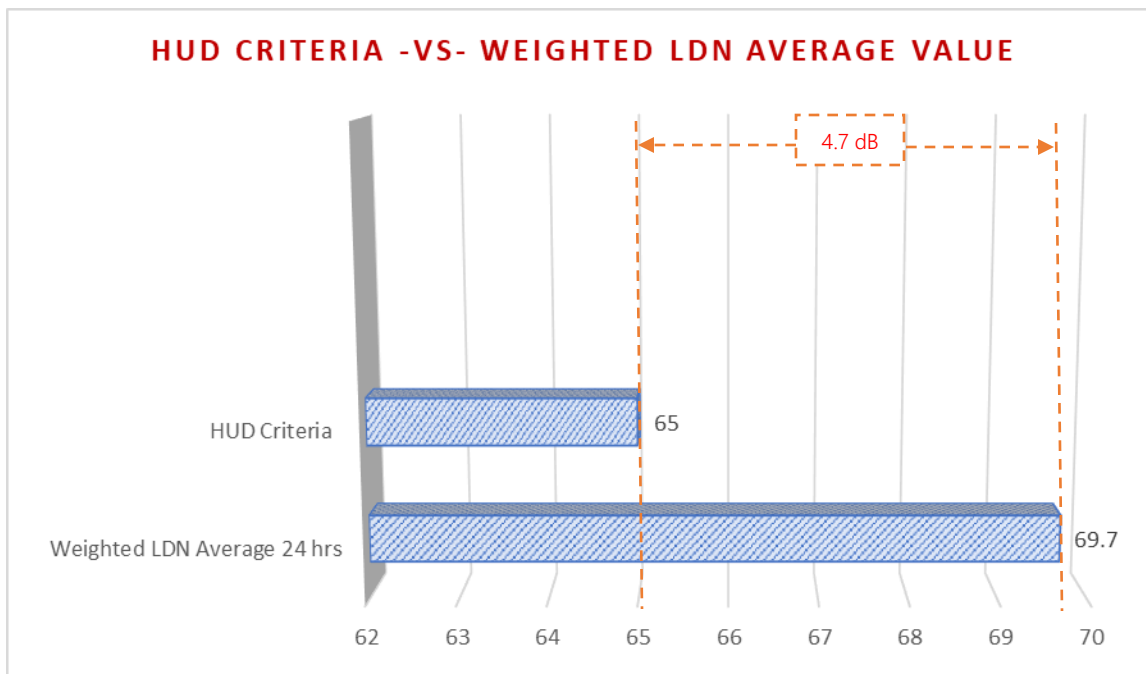


Figure #10 - HUD Criteria -vs- Weighted LDN Average Value

CONCLUSION & RECOMMENDATIONS

The HUD noise acceptability criterion of 65 dB for exterior of the "Ensueño" Project was normally unacceptable, refer to §51.104 (b) for special approvals and requirements for attenuations.

ACRONYMS

SPL - Sound Pressure Level will be displayed, with the selected weighting and response characteristics. The value displayed is the maximum SPL during the previous second. (SPL is also always shown in the display bar indicator.)

LEQ - The average integrated sound level accumulated while in the RUN mode is shown in the numeric display. LEQ indicates that a 3dB exchange rate was used for the measurements.

LAVG - The same type of measurement as LEQ, except that a 4, 5 or 6dB exchange rate was used. The display will be correct for the exchange rate selected.

TWA - Time Weighted Average. The average level accumulated during a study, but calculated with an eight-hour integration time.

LMAX - The Maximum SPL obtained while in the RUN mode is shown in the numeric display. With PEAK response selected, this functions as a Peak Hold.

LMIN - The Minimum Sound Pressure Level obtained while in the RUN mode is shown in the numeric display.

LN - The SPL exceeded for N of the time during a study. Four user selectable values are calculated. The default values are L5, L10, L50 and L90. The values may be changed in the PARA Setup Menu.

LDN - Day/Night Sound Level. The average sound pressure over a 24 hour study, with additional factors for time of day. Sound pressures between the hours of 10 pm and 7 am are increased by 10dB prior to being averaged. A 3dB exchange rate should be used and is generally assumed.

CNEL - Community Noise Exposure Level. The average sound pressure over a 24 hour study, with additional factors for time of day. Sound pressures between the hours of 7 pm and 10 pm are increased by 5dB prior to being averaged. Sound pressures between the hours of 10 pm and 7 am are increased by 10dB prior to being averaged. A 3dB exchange rate should be used and is generally assumed. If an exchange rate other than 3dB is selected via the Setup Menu, CNEL will not be calculated and the display will show.

% OL - Percentage of time during the study that an overload (OL) condition occurred. Overload indicates that the signal has exceeded the measuring range.

SEL - Sound Exposure in Pascal-squared seconds or Pascal-squared hours, switching from Pa2S to Pa2H at 3600 Pa2S. The display will show if the exchange rate is not 3dB.

SEL - The Sound Exposure Level is the constant Sound level which, if lasting for one Second, would deliver the same amount of acoustical energy as that accumulated over the entire Study

RTMS or **RTHM** - The total RUN time will be displayed. Time may be displayed in MIN:SEC and HRS:MIN. The MIN:SEC display for a Study that lasts over one hour will wrap around to 00:00. The HRS:MIN display will count to 99:59 and then wrap around to 00:00 but the actual time will be stored in memory.

LPK - The Peak Level. The output of a second peak detector may be viewed as LPK or logged. The frequency weighting is independent of the main RMS detector and may be set in the PAPA setup menu as 2PK. The selection of whether or not to log peaks is made in the LOG Setup Menu. The weighting selection (A, C or LIN) is made in the PAPA Setup Menu. While viewing LPK the weighting of the second peak detector is displayed, and the Weighting and Response keys are disabled.

LLOG - The LEQ (or LAVG) last logged during a study. Data is logged at a user defined interval. This feature may be used to display a timed LEQ for the previous logging interval. This display updates at the end of each logging interval. The display will show LLOG " if LEQ is not being logged.

TAKM - The time integration of individual Taktmaximal values. Taktmaximal is the maximum level (LMAX) encountered over either a 3 or 5 second interval. 3 or 5 second Taktmaximal is selected in the PAPA Setup Menu. Individual Taktmaximal (LMAX) values may be logged by setting the logging interval to 3 or 5 seconds in the LOG Setup Menu. Taktmaximal measurements are required by some countries' noise regulations. A Taktmaximal measurement calculates a higher average level for highly impulsive sounds than does a LEQ measurement. TAKM is affected by the Exchange Rate and should be run with an Exchange Rate of 3dB.

BATT - Displays the voltage of the weaker of the two 9 volt batteries to give an indication of remaining life. The low battery indication (DAT) on the display occurs at approximately 6.8 volts.

LC-A - An optional second RMS detector may be used to provide a simultaneous C-A weighted LEQ or LAVG of the measured sound. Refer to section 3.6 C-A Option".

DEFINITIONS

DbA- Sound level in decibels read on the A scale of sound-level meter. The A scale of a sound discriminates against very low frequencies (as does the human ear) and is therefore better for measuring general sound levels.

dBC- Sound level in decibels read on the C scale of sound-level meter. The C scale discriminates very little against very low frequencies.

Decibel (dB)- A unit used to express sound-power level (L) and sound-pressure level (Lv). Sound power is the total acoustic output of a sound source in watts (W). By definition, sound-power level, in decibels, is: $L_w = 10 \log W/W_o$, where W is the sound power of the source and W_o is the reference sound power of 10^{-12} . Because the decibel is also used to describe other physical quantities, such as electrical current and electrical voltage, the correct reference quantity must be specified.

Far field- In noise measurements, this refers to the distance from the noise source where the sound-pressure level decreases 6 dBA for each doubling of distance (inverse square law).

Filter- A device for separating components of a signal on the basis of its frequency. It allows components in one or more frequency bands to pass relatively unattenuated, and it greatly attenuates components in other frequency bands.

Free sound field (free field)- A field in a homogeneous, isotropic medium free from boundaries. In practice it is a field in which the effects of the boundaries are negligible over the region of interest.

Frequency (in Hz)- Rate at which pressure oscillations are produced One hertz is equivalent to one cycle per second A subjective characteristic of sound related to frequency is pitch.

Hearing conservation- The prevention or minimizing of noise-induced deafness through the use of hearing protection devices, the control of noise through engineering methods, annual audiometric tests, and employee training.

Hearing level- The deviation in decibels of an individual's threshold from the zero reference of the audiometer.

Near Field- In noise measurements, refers to a field in the immediate vicinity of the noise source where the sound-pressure level does not follow the inverse square law.

Noise- Any unwanted sound.

Pink noise- Noise that has been weighted, especially at the low end of the spectrum, so that the energy per band (usually octave band) is approximately constant over the spectrum.

Sound absorption coefficient- The ratio of the sound energy absorbed by the surface of a medium (or material) exposed to a sound field (or to sound radiation) to the sound energy incident on that surface.

Sound analyzer- A device for measuring the band-pressure level or pressure-spectrum level of a sound as a function of frequency.

Sound level- A weighted sound-pressure level obtained by the use of metering characteristics and the weighting A, B, or C specified in ANSI S1.4.

Sound-level meter and octave-band analyzer- Instruments for measuring sound-pressure levels in decibels referenced to 0.0002 microbars. Readings can also be made in specific octave bands, usually beginning at 75 Hz and continuing through 10,000 Hz.

Sound-pressure level, SPL- The level, in decibels, of a sound is 20 times the logarithm to the base 10 of the ratio of the pressure of this sound to the reference pressure, which must be explicitly stated.

Sound transmission- The word sound usually means sound waves traveling in air. However, sound waves also travel in solids and liquids. These sound waves may be transmitted to air to make sound we can hear.

APPENDIX 1: “REGLAMENTO PARA EL CONTROL DE LA CONTAMINACIÓN DE RUIDO”

DEPARTAMENTO DE ESTADO

Número: 8019

Fecha: 9 de mayo de 2011

Aprobado: Hon. Kenneth D. McClintock
Secretario de Estado



Por: Eduardo Arosemena Muñoz
Secretario Auxiliar de Servicios

Reglamento para el control de la CONTAMINACIÓN por RUIDOS



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JUNTA DE CALIDAD AMBIENTAL

VOLANTE SUPLETORIO

Título del Reglamento: Reglamento para el Control de Contaminación por Ruidos

Fecha de aprobación: 5 de mayo de 2011 (Resolución R-11-7-1)

Aprobación: Junta de Gobierno en pleno compuesta por:

Sr. Reynaldo Matos
Miembro Asociado

Lcda. Blanche Gonzalez Hodge
Miembro Asociado

Lcdo. Pedro J. Nieves Miranda
Presidente

Fecha de publicación del Aviso Público: 1 de mayo de 2010, periódico El Vocero
1 de mayo de 2010, periódico Primera Hora
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Agencia que lo aprobó: Junta de Calidad Ambiental
Edificio Agencias Ambientales Cruz A. Matos
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1375 Avenida Ponce de León
San Juan, Puerto Rico 00926-2604

Referencia sobre autoridad estatutaria para promulgar el reglamento: Ley sobre Política Pública Ambiental, Ley Núm. 416 de 22 de septiembre de 2004, según enmendada

DEPARTAMENTO DE ESTADO
CERTIFICACIONES Y
REGULACIONES
MAY - 9 PM 3:51

Reglamento Número: _____

Fecha de Radicación en el
Departamento de Estado: _____

Fecha de Vigencia: _____

Reglamento a enmendarse: Reglamento para el Control de la
Contaminación por Ruidos,
Reglamento Núm. 3418 de 25 de
febrero de 1987.

CERTIFICACIÓN

Certifico que el procedimiento de reglamentación seguido en este caso se llevó a tenor con las disposiciones de la Ley de Procedimiento Administrativo Uniforme, Ley Núm. 170 de 12 de agosto de 1988, según enmendada, y que el reglamento a que hace referencia este Volante Supletorio fue debidamente revisado y no contiene errores sustantivos, tipográficos o clericales. Además, Certifico que con el Volante Supletorio se acompaña copia de los avisos de prensa publicados.



Lcda. Edmée Zeidan Cuebas
Secretaria de la Junta de Gobierno de
la Junta de Calidad Ambiental

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PARTE I: DISPOSICIONES GENERALES

REGLA 1 – TÍTULO

Estas Reglas se conocerán como Reglamento para el Control de la Contaminación por Ruidos.

REGLA 2 – BASE LEGAL

Este Reglamento es promulgado bajo la autoridad conferida a la Junta de Calidad Ambiental de Puerto Rico, en adelante la JCA, mediante la Ley sobre Política Pública Ambiental, Ley Núm. 416 del 22 de septiembre de 2004, según enmendada, y de conformidad con las disposiciones de la Ley de Procedimiento Administrativo Uniforme, Ley Núm. 170 del 22 de agosto de 1988, según enmendada.

REGLA 3 – ENMIENDA AL REGLAMENTO PARA EL CONTROL DE LA CONTAMINACIÓN POR RUIDO

Este Reglamento enmienda el Reglamento para el Control de la Contaminación por Ruidos, Reglamento Núm. 3418 de 25 de febrero de 1987.

REGLA 4 – PROPÓSITO

Los propósitos de este Reglamento son:

- A. Establecer las normas y requisitos para el control, disminución o eliminación de ruidos que puedan resultar nocivos a la salud y perturbar el bienestar público.
- B. Establecer los requisitos para los niveles de emisiones de ruido entre zonas y para la administración y procedimientos relacionados con la valoración de los niveles sonoros.

REGLA 5 – VIGENCIA DEL REGLAMENTO

- A. Este Reglamento comenzará a regir a los treinta (30) días de su radicación en el Departamento de Estado.

- B. Todos los asuntos que hayan sido presentados con antelación a la vigencia de este Reglamento y que se encuentren pendientes ante la JCA o un tribunal con jurisdicción y competencia, continuarán su curso de acuerdo a lo establecido en el Reglamento Núm. 3418 de 24 de febrero de 1987.

REGLA 6 – CLÁUSULA DE SEPARABILIDAD

Si cualquier disposición del presente Reglamento fuese declarada ilegal o inconstitucional por un tribunal con jurisdicción y competencia, tal decisión no afectará las demás disposiciones del mismo, las cuales se mantendrán en pleno efecto y vigor, considerándose cada una por separado.

REGLA 7 – DISPOSICIONES CONFLICTIVAS O CONTRADICTORIAS

Cuando dos o más disposiciones de este Reglamento sean aplicables a la misma situación de hechos y éstas resultaran ser contradictorias o conflictivas entre sí, se aplicará la disposición que sea más restrictiva.

REGLA 8-9 –RESERVADAS

PARTE II: DEFINICIONES

REGLA 10 – DEFINICIONES

Para propósitos de este Reglamento, los siguientes términos tendrán los significados que se expresan a continuación y deberá entenderse que el singular incluye el plural y el masculino incluye el femenino:

- A. Aerogenerador** – es un aparato que convierte la energía eólica en energía eléctrica mediante un generador accionado por el viento, conocido también como turbina eólica. Sus componentes estructurales y mecánicos incluyen una torre, góndola (en inglés, "nacelle"), generador, sistema de control y cimientos, entre otros.
- B. Amortiguador de sonido ("muffler")** – es cualquier dispositivo o artefacto utilizado para reducir el sonido producido por la emisión de gases provenientes de un motor de combustión interna.
- C. Bocina de aire** – es cualquier artefacto que se utilice para producir una señal de sonido y para lo cual se utilice gas comprimido.

- D. Construcción** – es cualquier actividad relacionada a la instalación de un equipo generador de sonido, movimiento de terreno, demolición, remoción o disposición, excavación y operaciones de terminaciones en edificios, predios, derechos de vías, estructuras públicas o privadas o propiedad similar.
- E. Contaminación por ruido** – es cualquier emisión de sonido que exceda los niveles de ruido permitidos en este Reglamento.
- F. Decibello o Decibel (dB)** – es una unidad para medir la intensidad del sonido, la cual es igual a veinte (20) veces el logaritmo de base 10 de la razón entre la presión del sonido y la presión de referencia, la que es 20 micro pascuales (μPa).
- G. dB(A)** – es la unidad de medida utilizada para comparar magnitudes del total de la presión de sonido cuando se usa la escala de medición "A" del sonómetro y usando una presión de referencia de 20 micro pascuales (μPa).
- H. Demolición** – es la destrucción, remoción o desmantelamiento intencional de estructuras de forma total o parcial, tales como, pero sin limitarse a, edificios públicos o privados, superficies de vía u otros similares.
- I. Día de la semana** – es cualquier día natural de la semana.
- J. Emergencia** – es cualquier determinación hecha por el Director Ejecutivo de la JCA o la Junta de Gobierno de la JCA, mediante Resolución al respecto, ante un evento particular, sobre cualquier situación o serie de situaciones que ponen en peligro real o inminente a cualquier persona, propiedad o recurso, y para el cual se requiere atención inmediata. Se entenderá también como emergencia, cualquier anomalía causada por un evento natural o tecnológico, tales como huracán, tornado, tormenta, inundación, terremoto, maremoto, derrumbe de tierra, sequía, incendio, explosión, accidente o materiales peligrosos, entre otros; cualquier grave perturbación del orden público o un ataque por fuerza enemiga a través de sabotaje o mediante el uso de bombas, artillería o explosivo de cualquier género o por medio atómico, radiológico, químico o bacteriológico, así como también por cualquier otro medio que utilice el enemigo en cualquier parte de Puerto Rico y que amerite que se movilicen y se utilicen recursos humanos y económicos extraordinarios a nivel estatal y municipal para remediar los daños causados o evitar los que puedan surgir en ese estado o para prevenir o disminuir la amenaza de que la emergencia pueda convertirse en un desastre.
- K. Emisión de Sonido** – es la emanación de sonido a la atmósfera por una

fuente emisora.

- L. Espectro sonoro** – es la descripción de un sonido en términos de sus componentes de frecuencia. Se utiliza el análisis en bandas de 1/1 octava, 1/3 octava y el análisis de Fourier (FFT).
- M. Fuente emisora** – es cualquier objeto o artefacto originador de ondas sonoras, sea de tipo estacionario, móvil o portátil.
- N. Góndola ("nacelle")** – es la estructura en la cima de la torre de un aerogenerador que contiene todos los componentes generatrices del aerogenerador, incluyendo el multiplicador y el generador eléctrico, entre otros.
- O. Junta de Calidad Ambiental (JCA)** – es la agencia del Gobierno de Puerto Rico creada por la Ley Núm. 416 de 22 de septiembre de 2004, según enmendada, conocida como la Ley sobre Política Pública Ambiental.
- P. Junta de Gobierno de la JCA** – es el organismo rector de la Junta de Calidad Ambiental, el cual se compone de tres miembros nombrados por el Gobernador con el consejo y consentimiento del Senado y se compone de un Presidente, un Vice-Presidente y un Miembro Asociado. Un Miembro Alternativo, que también es nombrado por el Gobernador, podrá sustituir a cualquiera de los miembros asociados cuando uno de estos no se encuentre presente.
- Q. K_I** – es la penalización por ruidos impulsivos ($L_{im} - L_{eq}$).
- R. K_T** – es la penalización por tonos prominentes.
- S. L_{10}** – es el nivel de sonido en la escala A, dB (A), que es excedido en un diez por ciento (10%) del tiempo para un determinado periodo bajo consideración.
- T. L_{90}** – representa el nivel que ha superado el 90% del tiempo de medida. Es indicativo de los valores bajos de ruido.
- U. L_{im}** – es el nivel máximo de presión observado con detección de "impulsos".
- V. $L_{equivalente} (L_{eq})$** – es el nivel sonoro continuo equivalente; es decir, el nivel constante, dB(A), que puede producir la misma energía sonora (medida en escala A) que un sonido variante especificado en un tiempo establecido.
- W. $L_{equivalente\ tiempo} (L_{eq\ T})$** – es el nivel sonoro continuo equivalente. Éste se

define como el valor del nivel de presión en dB en ponderación A de un sonido estable que en un intervalo de tiempo (T) posee la misma presión sonora cuadrática media (P_{rms} : valor eficaz) que el sonido que se mide y cuyo nivel varía con el tiempo.

X. LICA – el nivel máximo permitido a la fuente por este Reglamento, excluyendo la influencia del ruido de fondo.

Y. Límite de propiedad – es límite de la colindancia del predio donde ubica la fuente originadora de sonido.

Z. Medición de Sonido – es la recopilación de datos sonoros de acuerdo a los procedimientos establecidos por la Junta de Calidad Ambiental.

AA. Nivel de presión acústica ("Sound Pressure Level" o SPL) – es la cantidad en decibeles que se obtiene como resultado del cálculo matemático que consiste del producto de 20 por el logaritmo de base 10 de la razón entre la presión acústica registrada (P) y el valor de la presión acústica de referencia (P_{ref}) que equivale a 2×10^{-5} Newtons/m²; esto es, " $20 \cdot \log_{10} (P/P_{ref})$ ".

BB. Nivel de sonido o nivel sonoro – es el nivel de presión de sonido medido mediante las características de medición y escalas A, B o C, tal como lo especifica la última revisión de "*Specification for Sound Level Meters*" de la "*American National Standards Institute*" (ANSI).

CC. Ondas de sonido – son las variaciones periódicas ondulatorias de sonido en la densidad y en la presión del medio.

DD. Onda sonora – es la variación en la presión de un medio (típicamente, el aire) y que se propaga a una velocidad característica.

EE. Parte responsable – es toda persona natural o jurídica que sea dueño u operador de la fuente emisora del ruido causando un incumplimiento con este Reglamento.

FF. Periodo diurno – es el periodo comprendido entre las 7:00 a.m. y las 10:00 p.m. de cualquier día de la semana.

GG. Periodo nocturno – es el periodo comprendido entre las 10:01 p.m. de un día y las 6:59 a.m. del día siguiente.

HH. Persona – es toda persona, natural o jurídica, o grupo de personas privadas o públicas, incluyendo agencias e instrumentalidades del gobierno, municipios u otras similares.

II. Predio originador de sonido – es el sitio, local o lugar de origen de ondas sonoras o cualquier área geográfica, incluyendo todos los terrenos y cuerpos de agua contiguos. Éste comprende todas las fuentes individuales de sonido que estén localizadas dentro de los límites de dicha propiedad, ya sean de tipo estacionario, móvil o portátil.

JJ. Predio originador de sonido existente – es cualquier predio originador de sonido existente a la fecha de vigencia de este Reglamento.

KK. Predio originador de sonido nuevo o modificado – es cualquier predio originador de sonido que sea establecido en una fecha posterior a la vigencia de este Reglamento, o que existiendo sea modificado de alguna manera.

LL. Presión acústica – son las variaciones en la fuerza por unidad de área, medida en Newtons/metro², que se observa en un medio durante la propagación de una onda acústica. Para el caso del medio "aire", se registran variaciones por encima y por debajo de la presión atmosférica local.

MM. Presión de onda sonora– se representa como "Lp" y se expresa en decibeles. Esta cantidad se obtiene como resultado de un cálculo matemático que consiste del producto de 20 por el logaritmo de base 10 de la razón entre la presión de sonido (P) y una presión de referencia (P_{ref}) de 20 micro pascales (µPa); esto es, $L_p = 20 \cdot \log_{10} (P/P_{ref})$.

NN. Rotor – está compuesto por varias palas y es el que transforma la energía cinética del viento en un momento torsor en el eje del equipo.

OO. Ruido – es un sonido que excede las limitaciones (valores) establecidos en este Reglamento. El sonido podría o no resultar indeseable y afectar psicológicamente y/o fisiológicamente al ser humano.

PP. Ruido continuo – es aquel ruido que se manifiesta ininterrumpidamente durante más de tres minutos. Dentro de esta categoría se diferencian las siguientes tres situaciones:

1. **Ruido continuo fluctuante** – es aquel ruido cuyo nivel de presión acústica, (SPL), varía entre unos límites que difieren en más de 6 dB(A) cuando se utiliza la respuesta rápida ("fast") del sonómetro.

2. **Ruido continuo uniforme** – es aquel ruido cuyo nivel de presión acústica, (SPL), varía entre unos límites que difieren en menos de 3 dB(A) cuando se utiliza la respuesta rápida ("fast") del sonómetro.

- 3. Ruido continuo variable** – es aquel ruido cuyo nivel de presión acústica, (SPL), varía entre unos límites que van desde 3 a 6 dB(A) cuando se utiliza la respuesta rápida (“fast”) del sonómetro.
- QQ. Ruido de fondo ambiental** – es el ruido existente en un ambiente dado y que se compone, usualmente, de sonidos de diversas fuentes, cercanas y lejanas. Se excluye la fuente de ruido que da lugar a la querrela.
- RR. Ruido de fondo despreciable** – es un ruido de fondo cuyo nivel está sobre los 10 dB de diferencia al de la fuente sonora que se desea medir.
- SS. Ruido de fondo elevado** – es un ruido de fondo cuya diferencia es menor de 3 dB cuando se compara con el ruido de la fuente sonora.
- TT. Ruido esporádico** – es aquel ruido que se manifiesta interrumpidamente durante un periodo de tiempo igual o menor de tres (3) minutos.
- UU. Ruido esporádico aleatorio** – es aquel ruido esporádico que se produce de forma totalmente impredecible.
- VV. Ruido esporádico intermitente** – es aquel ruido esporádico que se repite en periodos de tiempo que son posibles de determinar.
- WW. Ruido estridente** – es un ruido agudo, desapacible y chirriante.
- XX. Ruido impulsivo** – es un ruido procedente de un sonido impulsivo.
- YY. Ruido perturbador** – es un ruido que atenta contra la paz y/o tranquilidad de una persona y que viola las disposiciones de este Reglamento.
- ZZ. Sistema de generación de energía eólica** – es un sistema compuesto de uno o más aerogeneradores y sus obras accesorias. Para propósito de este Reglamento, este sistema podrá clasificarse en uno de tres grupos básicos conforme a las siguientes definiciones:
- 1. Sistema de generación de energía eólica de escala pequeña** – es aquel que en total tiene una capacidad nominal para generar hasta veinte (20) kilowatts (kW) de electricidad.
 - 2. Sistemas de generación de energía eólica de escala mediana o distribuida** – es aquel que se compone de uno (1) a cinco (5) aerogeneradores y que en total tiene una capacidad nominal para generar más de veinte (20) kilowatts (kW) de electricidad, pero en el que

ninguno de los aerogeneradores tiene la capacidad para generar individualmente más de un (1) megawatt (MW) de electricidad.

3. Sistemas de generación de energía eólica de gran escala o escala industrial – es aquel que se compone de más de cinco (5) aerogeneradores o que, de estar compuesto por menos de cinco (5) aerogeneradores, incluye al menos un (1) aerogenerador que tiene la capacidad individual para generar un (1) megawatt (MW) de electricidad o más.

AAA. Sonido – es un fenómeno físico en el cual la materia se pone en vibración y genera una onda acústica en un medio particular que es captada por un receptor. Éste se puede describir usando diversas características, tales como: longitud de onda, velocidad de propagación, nivel sonoro, contenido espectral y duración.

BBB. Sonido impulsivo – es un sonido de muy corta duración, generalmente de una fracción de segundo y con una abrupta subida y rápida disminución de presión acústica. Ejemplos típicos de este tipo de sonido son las explosiones, impactos de martillo, descargas de armas de fuego, entre otros.

CCC. Sonido indeseable – es aquel sonido que excede los niveles permitidos en este Reglamento.

DDD. Sonómetro – es un instrumento que se usa para medir los niveles de sonido, de acuerdo con el "Specification for Sound Level Meters" Type 1 y 2, o la última revisión aprobada de la "American National Standards Institute" (ANSI). Incluye el sonómetro de precisión calibrada y el sonómetro integrado de precisión.

EEE. Tono – es un sonido caracterizado por una sola frecuencia e incluye cualquier sonido que pueda ser percibido como un tono único o una sucesión de tonos.

FFF. Torre – es una estructura que soporta la góndola y el rotor en un aerogenerador.

GGG. Vehículo de motor – es cualquier vehículo impulsado o movido sobre el terreno por un motor. Incluye vehículos tales como, pero sin limitarse a, vehículos de pasajeros, camiones, camiones de arrastre, arrastres de acampar, vehículos de carreras, vehículos de recreación y motocicletas.

HHH. Vía pública – es cualquier vía, calle, carretera, autopista, avenida, callejón, acera o espacio similar destinado al uso público.

III. Vibración – es un movimiento oscilatorio de cuerpos materiales y que es descrito por las variables de velocidad, aceleración y amplitud.

JJJ. Zona – cualquiera de las áreas en la que el ser humano lleva a cabo diversas actividades y que han sido clasificadas en este Reglamento como: zona de tranquilidad, zona residencial, zona comercial o zona industrial.

KKK. Zona Comercial – área donde se agrupan locales comerciales no habitados por humanos y en los que se vende toda clase de mercancía o se brindan servicios misceláneos. En esta zona se permiten niveles superiores a los permitidos en las zonas residenciales, pero inferiores a los niveles de ruido en las zonas industriales. Esta definición incluye, pero no se limita, a áreas tales como las siguientes: establecimientos comerciales de alimentos, estaciones de servicios de vehículos, recreación y entretenimiento, servicios comunales.

LLL. Zona de Tranquilidad – área previamente designada por el gobierno estatal, municipal o federal, en la que haya necesidad de una tranquilidad excepcional.

MMM. Zona Industrial – área de terreno subdividida y desarrollada, de acuerdo con un plan general, para el uso de una cantidad de empresas industriales en la cual los seres humanos van a permanecer por largos periodos de tiempo. Las actividades económicas que envuelve esta zona, son de tal naturaleza que se anticipan niveles mayores de ruido que en las otras zonas.

NNN. Zona Residencial – área en la cual los seres humanos habitan y donde los niveles de ruido pueden interferir con el disfrute de la propiedad. Ésta incluye todas las residencias, terrenos y estructuras. Dicha zona aplica también a cualquier sitio dentro de los límites de la propiedad, según sea aplicable.

PARTE III: DISPOSICIONES ADMINISTRATIVAS

REGLA 11 – DERECHO DE UN FUNCIONARIO A ACCEDER, INSPECCIONAR, EXAMINAR O LLEVAR A CABO CUALQUIER ACCIÓN PERTINENTE

A. La JCA, representada por sus miembros, agentes o empleados, podrá acceder, inspeccionar, examinar y llevar a cabo cualquier otra acción autorizada por este Reglamento, por la Ley sobre Política Pública Ambiental, *supra*, por la Ley de Procedimiento Administrativo Uniforme, *supra*, o por un Tribunal con jurisdicción y competencia. Estas acciones podrán llevarse a

cabo en cualquier local, equipo, instalación y/o documentos de cualquier persona, entidad, firma, agencia o instrumentalidad gubernamental sujeta a su jurisdicción. Estas gestiones serán realizadas con el fin de investigar, inspeccionar o tomar aquellas medidas que se estimen necesarias para asegurar las mejores condiciones ambientales, verificar el cumplimiento con las disposiciones de este Reglamento y tomar las medidas de sonido que la JCA estime necesarias.

- B. En caso de que a un funcionario de la JCA que esté identificado como tal, se le niegue el acceso o se le impida realizar una inspección o cualquier acción autorizada en ley, la JCA podrá expedir una orden administrativa u obtener una orden judicial, según los procedimientos dispuestos por la Ley sobre Política Pública Ambiental, *supra*, la Ley de Procedimiento Administrativo Uniforme, *supra*, o cualquier otra ley especial.
- C. Cualquier solicitud de documentos que se encuentre dentro del ámbito jurisdiccional de la JCA que sea hecha por un funcionario de esta agencia y que esté debidamente identificado y autorizado para llevar a cabo una inspección o cualquier asunto comprendido en la Ley de Política Pública Ambiental, *supra*, o en este Reglamento, tendrá que ser provista dentro de un término no mayor de cuarenta y ocho (48) horas o aquel período de tiempo que disponga la JCA.

REGLA 12 – INFORMACIÓN DISPONIBLE AL PÚBLICO

- A. Toda información recibida por la JCA estará disponible para ser inspeccionada y copiada por el público, según dispuesto en la Ley sobre Política Pública Ambiental, *supra*, en este Reglamento o en cualquier mecanismo que para ello se apruebe por la JCA.
- B. Cualquier persona que someta información y documentos a la JCA, podrá reclamar confidencialidad para toda o parte de la información o documento sometido. Dicha solicitud deberá realizarse por escrito y expondrá todas las razones por las cuales se solicita la confidencialidad.
- C. Cualquier información o documento presentado a la JCA sin haberse presentado la correspondiente solicitud de confidencialidad conforme a lo aquí dispuesto, estará disponible al público sin restricción alguna. La JCA adjudicará los reclamos de confidencialidad de conformidad con la Ley sobre Política Pública Ambiental, *supra*, o cualquier mecanismo que a tales efectos apruebe la Junta de Gobierno de la JCA.

REGLA 13 – NOTIFICACIÓN DE VIOLACIÓN Y ÓRDENES ADMINISTRATIVAS

- A. Siempre que la JCA encuentre que una o más disposiciones de este Reglamento han sido violadas o haya motivos fundados para pensar que han sido violadas, la JCA podrá, a su discreción, expedir por escrito una notificación de violación en contra del alegado infractor. Toda notificación especificará en qué consistió la violación y/o los aspectos que están fuera de cumplimiento con esta reglamentación.
- B. La notificación de la que habla el inciso anterior especificará los requisitos y las condiciones que la JCA determine necesarios y podrá incluir términos de tiempo para lograr cumplimiento. No obstante lo antes mencionado e independientemente de que se haya expedido una notificación de violación, la JCA podrá expedir una Orden Administrativa de Hacer, Mostrar Causa y/o, Cese y Desista, así como cualquier otra acción o provisión disponible en la Ley sobre Política Pública Ambiental, *supra*.

REGLA 14 – PENALIDADES

- A. Cualquier violación a este Reglamento estará sujeta a las penalidades según establecidas en la Ley sobre Política Pública Ambiental, *supra*.
- B. La imposición de penalidades se realizará luego de finalizado un proceso de vista administrativa, el que se conducirá según las disposiciones de la Ley de Procedimiento Administrativo Uniforme, *supra*, la Ley sobre Política Pública Ambiental, *supra*, y el reglamento aprobado por la JCA para la celebración de procedimientos y/o vistas administrativas.

REGLA 15 – ESTORBO PÚBLICO

Ninguna parte de este Reglamento deberá entenderse como que autoriza o legaliza la creación o mantenimiento de un estorbo público, según ha sido definido por las leyes estatales y federales.

REGLA 16 – ACCIONES LEGALES DE CIUDADANOS

Ninguna parte de este Reglamento deberá entenderse como un límite a las acciones legales civiles que pudiesen llevar los ciudadanos, según se establece en el Artículo 19 de la Ley sobre Política Pública Ambiental, *supra*.

REGLA 17 – RESPONSABILIDAD DE CUMPLIMIENTO

Este Reglamento no limita el derecho de persona alguna para exigir o lograr el cumplimiento con sus requisitos o para proveer los servicios requeridos al

contratar con terceros. Sin embargo, tales contratos no relevarán a ninguna persona de la obligación de cumplir con este Reglamento.

REGLA 18-19- RESERVADAS

PARTE IV: PROHIBICIONES Y REQUISITOS GENERALES

REGLA 20- PROHIBICIONES GENERALES

A. Acciones prohibidas

Queda prohibida cualquier acción u omisión en violación a los requisitos establecidos en este Reglamento. Por tanto, ninguna persona causará o permitirá que se produzca la contaminación por ruido debido a la emisión de cualquier sonido en violación a este Reglamento.

B. Información Falsa o Errónea.

Ninguna persona podrá someter por sí o por una tercera persona, información falsa o errónea a la JCA. Tampoco podrá incluir o permitir que se incluya información falsa en algún documento sometido a la JCA en virtud de este Reglamento.

C. Interferencia

Ninguna persona causará o permitirá:

1. La interferencia, alteración, remoción o destrucción de cualquier equipo de control de ruido, excepto que no sea para propósitos de reparación o reposición.
2. La interferencia intencional o alteración de cualquier instrumento, artefacto o área de localización debidamente rotulada, que haya sido localizado por o para la JCA con el propósito de llevar a cabo cualquier tipo de medición de sonido.
3. El uso de un producto al cual le haya sido removido o dejado inoperante el sistema de control de ruido, cualquier elemento de diseño de éste o su rótulo de nivel de sonido.

D. Registros o Récorde

La JCA podrá requerir del dueño o persona responsable de cualquier predio originador de sonido o fuente emisora de sonido, que establezca y mantenga un registro sobre la emisión de los mismos, así como preparar aquellos informes que, a juicio de la JCA, sean necesarios.

E. Mediciones

Todas las mediciones y los análisis de datos se harán de acuerdo con los métodos y procedimientos adoptados o aceptados por la JCA conforme a este Reglamento.

F. Equipo

Todo equipo para el control de la contaminación por ruidos deberá instalarse, conservarse y operarse en forma satisfactoria y razonable de acuerdo con las especificaciones del fabricante, de la "American National Standards Institute" (ANSI), *Specification for Sound Level Meter, S1.4-1971*, o su última revisión, así como con aquellos requisitos establecidos por la JCA.

REGLA 21 – RUIDOS PROHIBIDOS

A. Las siguientes acciones, entre otras, se declaran como ruidos contaminantes, excesivos, perturbadores y estridentes y están prohibidos por este Reglamento:

1. Bocinas y sirenas

Ninguna persona ocasionará o permitirá, innecesariamente, el sonar de bocinas y sirenas de cualquier vehículo de motor en una vía pública o predio originador de sonido, excepto como una señal de peligro o en casos de emergencia, según definido en este Reglamento.

2. Radios, instrumentos musicales, velloneras, amplificadores y artefactos similares

Ninguna persona operará o permitirá la operación de cualquier radio, instrumento musical, vellonera, amplificador o cualquier artefacto similar para la producción o reproducción de sonido, de tal forma que ocasione contaminación por ruido a través del límite de propiedad, en violación de los límites fijados en este Reglamento.

3. Altoparlantes exteriores, megáfonos y artefactos similares

Ninguna persona usará u operará o permitirá el uso u operación de cualquier altoparlante, megáfono o artefacto similar en una posición fija o movable en el exterior de cualquier estructura o vehículo de motor, en exceso de los niveles máximos permitidos bajo este Reglamento. No podrán usarse dichos artefactos durante el periodo nocturno.

4. Construcción

Ninguna persona usará u operará o permitirá el uso u operación de cualquier equipo para la construcción, reparación o trabajos de demolición, de forma que se produzca contaminación por ruido, según se define en este Reglamento. Además, se prohíbe el uso u operación de dicho equipo durante el periodo nocturno, excepto para realizar obras en casos de emergencia, según definido en este Reglamento.

Esta Sección no aplicará al uso de herramientas domésticas, sujeto a este Reglamento.

5. Vehículos de motor

- a. Ninguna persona operará o permitirá la operación de un vehículo de motor en una vía pública en cualquier momento de forma tal que los niveles de presión de sonido emitidos por el vehículo excedan los niveles máximos permisibles establecidos en este Reglamento. Tampoco se permitirá la operación de un vehículo de motor que no esté equipado por un sistema, aparato o artefacto amortiguador de sonido que opere eficientemente.
- b. Ninguna persona dejará operando o permitirá la operación de cualquier vehículo de motor o cualquier equipo auxiliar de arrastre estacionado en una vía pública o predio de estacionamiento público o privado, a una distancia menor de 150 pies de la zona designada como residencial o tranquilidad durante el periodo nocturno. Esta prohibición abarca todo equipo que forme parte del vehículo de motor, tales como, pero no limitados a, equipo de refrigeración o equipo similar.

6. Eventos de vehículos de motor de carreras

Ninguna persona realizará o permitirá la realización de pruebas o carreras de vehículos de motor, en violación de las normas establecidas

en este Reglamento. Dicha prohibición está exceptuada para aquellas pistas autorizadas en forma prescrita por la JCA.

7. Vehículos de recolección de desperdicios sólidos

- a. Ninguna persona operará o permitirá la operación del mecanismo de compactar desperdicios sólidos en cualquier vehículo de motor, de tal forma que durante el ciclo de compactación se exceda el nivel de presión de sonido de 76 dB(A) medido a una distancia de 23 pies o su equivalente, desde cualquier punto del vehículo.
- b. Ninguna persona recolectará o permitirá la recolección de desperdicios sólidos en las zonas residenciales y de tranquilidad entre las 10:00 p.m. de un día a las 6:00 a.m. del siguiente día.

8. Alarmas

Ninguna persona sonará o permitirá el sonar de cualquier alarma exterior en cualquier edificio o vehículo a menos que tal alarma cese su operación dentro de diez (10) minutos luego de ser activada y cuya finalidad tenga el propósito de alertar una emergencia u acto criminal.

9. Maquinaria, equipo, abanicos y acondicionador de aire

Ninguna persona operará o permitirá la operación de maquinaria, equipo, abanicos y acondicionadores de aire de tal forma que excedan los límites máximos de niveles de presión de sonido establecidos en este Reglamento.

10. Reparación y prueba de vehículos de motor

La reparación, remodelación, reconstrucción, fabricación o prueba de cualquier vehículo de motor o motocicletas estará sujeta a los niveles máximos permisibles de sonidos fijados en este Reglamento.

11. Equipo de motor doméstico (*Domestic Power Tools*)

Ninguna persona operará o permitirá la operación de equipos de motor tales como: sierras, lijadoras, taladros, máquinas de cortar grama y equipo de jardín o herramientas de cualquier naturaleza, usados primordialmente para propósitos domésticos en el exterior e interior de residencias, durante las horas que comprende el periodo nocturno. Tampoco se podrá operar o permitir la operación de tal equipo de motor

en cualquier momento, de tal forma que viole las disposiciones de este Reglamento.

12. Venta por pregono

Ninguna persona venderá o permitirá la venta de cualquier producto pregonando en cualquier área, mediante el uso de sistemas de amplificación, de forma que la emisión de sonidos exceda los niveles máximos permisibles especificados en este Reglamento. Además, queda prohibida la venta por pregono durante el periodo nocturno.

13. Vibración

Ninguna persona operará o permitirá la operación de cualquier artefacto que genere vibraciones causadas por ondas sonoras o presión de sonido que puedan percibirse sin instrumentos, o que esté sobre los límites de percepción de una persona, en o más allá de los límites de cualquier propiedad contigua a la fuente originadora.

- B. Zona de Tranquilidad – Ninguna persona emitirá o permitirá la emisión de cualquier ruido innecesario, inesperado o inusitado, en violación a este Reglamento, en zonas donde sea necesaria tranquilidad mientras la misma está en uso. El área designada como zona de tranquilidad deberá estar provista de señales y rótulos conspicuos que hayan sido desplegados en calles adyacentes o contiguas, indicando que la misma es una zona de tranquilidad.

REGLA 22-23 – RESERVADAS

PARTE V: CLASIFICACIÓN DE ZONAS Y LOS NIVELES DE EMISIÓN DE SONIDOS ENTRE ZONAS

REGLA 24 – APLICABILIDAD

Esta Parte aplica a la fuente emisora o predio originador de cualquier sonido que pueda cruzar los límites de propiedad y exceder los niveles establecidos en la Tabla I, según medido en la zona receptora apropiada.

REGLA 25 – CLASIFICACIÓN DE ZONAS

A. Zona I: Residencial – Incluye, pero no se limita, a áreas tales como las siguientes:

1. Residencias

- a. permanentes
- b. rurales o campestres
- c. de verano

2. Viviendas comerciales

- a. hoteles y moteles
- b. apartamentos alquilados
- c. parques de casas móviles
- d. campamentos
- e. cabañas
- f. casa de huéspedes
- g. dormitorios estudiantiles

3. Servicios a la comunidad

- a. orfanatos
- b. instituciones correccionales
- c. instituciones de caridad

B. Zona II: Comercial – Incluye, pero no se limita, a áreas tales como:

1. Establecimientos comerciales de alimentos

- a. restaurantes
- b. comedores
- c. cafeterías
- d. heladerías
- e. clubes nocturnos
- f. cafetería al aire libre o rodante
- g. carnicerías
- h. supermercados

2. Estaciones de servicios de vehículos

- a. gasolineras
- b. venta y renta de vehículos de motor

- c. estacionamientos de vehículos públicos y privados
- d. centro de lavado de vehículos de motor
- e. servicios de reparación (hojalatería, pintura y mecánica, electrónica)
- f. servicio de accesorios para vehículos de motor

3. Comerciales

- a. funeraria
- b. clínicas veterinarias
- c. barberías
- d. salones de Belleza
- e. lavanderías
- f. oficinas
- g. farmacias
- h. centros comerciales

4. Recreación y entretenimiento

- a. teatros
- b. estadios
- c. hipódromos
- d. campos de golf
- e. lugares de diversiones y recreación
- f. playas, Ríos, Lagos y Lagunas
- g. plazas públicas
- h. gimnasios
- i. salones de bailes y discotecas

5. Servicios comunales

- a. iglesias
- b. centros culturales
- c. cotos de caza y pesca
- d. bosques estatales o nacionales

C. Zona III: Industrial – Incluye, pero no se limita, a áreas tales como:

1. Establecimientos de carga y descarga

- a. ferreterías
- b. almacenes, madereras, tiendas de ventas al por mayor
- c. terminal de camiones
- d. muelles
- e. depósito de materiales de construcción

f. instalación de desperdicios sólidos no peligrosos o peligrosos

2. Área industrial: propiedades utilizadas en la fabricación de bienes de consumo

- a. minería
- b. industrias livianas y pesadas
- c. petroquímicas
- d. refinerías
- e. extracción y procesamiento de materiales de la corteza terrestre
- f. siderúrgicas
- g. canteras
- h. central termoeléctrica
- i. farmacéuticas
- j. procesamiento agroquímicos
- k. almacenamiento de tanques de gas

3. Agricultura: área utilizada en la producción de cultivos de cosechas y/o crianza de animales

- a. granjas avícolas, conejos, porcinos y apicultura (abejas)
- b. vaquerías
- c. invernaderos
- d. graneros
- e. siembra, cultivo
- f. caballerizas

D. Zona IV: Tranquilidad – Incluye, pero no se limita, a áreas tales como:

- 1. Hospitales
- 2. Clínicas
- 3. Hospitales de salud mental
- 4. Tribunales de justicia
- 5. Asilos de ancianos
- 6. Escuelas
- 7. Guardería o cuidados infantiles

REGLA 26 – LÍMITE DE NIVELES DE SONIDO

Ninguna persona emitirá o permitirá la emisión de cualquier sonido, el cual al cruzar el límite de propiedad del predio originador de sonido, pueda exceder los niveles establecidos en la Tabla I de este Reglamento, según medido en la zona receptora apropiada de acuerdo con las definiciones de este Reglamento.

REGLA 27 – LÍMITES DE NIVELES DE SONIDO PARA AEROGENERADORES O SISTEMAS DE GENERACIÓN DE ENERGÍA EÓLICA

A fin de establecer los límites de sonido para los casos en que la fuente emisora de sonido es un aerogenerador o sistema de generación de energía eólica, según definido en este Reglamento, se aplicará la Tabla I con los siguientes ajustes:

- A. Cuando la fuente emisora es un aerogenerador o sistema de generación de energía eólica y la zona receptora es una Zona I (residencial), para el periodo nocturno con un nivel de sonido establecido de 50 dB(A), se realizará el ajuste de añadir 5 dB(A), a fin de que el nivel de sonido en estos casos sea de 55 dB(A).
- B. Cuando la fuente emisora es un aerogenerador o sistema de generación de energía eólica y la zona receptora es una Zona IV (tranquilidad) para el periodo nocturno con un nivel de sonido establecido de 50 dB(A), se realizará el ajuste de añadir 5 dB(A), a fin de que el nivel de sonido en estos casos sea de 55 dB(A).

TABLA I
LIMITE DE NIVELES DE SONIDO
dB(A)

Nivel de Sonido Excedido en 10 % del Periodo de Medición (L₁₀)

FUENTE EMISORA	ZONAS RECEPTORAS							
	Zona I (Residencial)		Zona II (Comercial)		Zona III (Industrial)		Zona IV (Tranquilidad)	
	D	N	D	N	D	N	D	N
Zona I (Residencial)	60	50	65	55	70	60	55	50
Zona II (Comercial)	65	50	70	60	75	65	55	50
Zona III (Industrial)	65	50	70	65	75	75	55	50
Zona IV (Tranquilidad)	65	50	70	65	75	75	55	50

Nota: "D" implica el periodo diurno y "N" implica el periodo nocturno.

REGLA 28 – MONITOREO

- A. A los únicos fines de orientar sobre la reglamentación de la JCA a una potencial fuente de ruidos que se presume podría emitir ruidos en violación a este Reglamento, personal de la JCA podrá requerir el encendido de la fuente, siempre y cuando la misma esté instalada o construida. Dicho encendido se solicitará con el fin de evaluar los niveles de sonido que genera la fuente. De no estar en cumplimiento con este Reglamento, la JCA podrá emitir una Notificación de Cortesía apercibiéndole de las violaciones a las que se expone de encontrarse operando la fuente.
- B. La JCA podrá requerir de cualquier predio originador de sonido o fuente emisora de ruido, que instale, opere y mantenga un equipo de monitoreo, así como la preparación y radicación de informes sobre la misma.

REGLA 29 – EXCEPCIONES A LAS PROHIBICIONES

A. Durante el periodo diurno

Las prohibiciones establecidas en esta Regla aplicarán a las fuentes emisoras o predio originador de cualquier sonido que pueda cruzar los límites de la propiedad. Las siguientes acciones, cuando se lleven a cabo durante el periodo diurno (7:00 a.m. a 10:00 p.m.), estarán exentas de los requisitos establecidos en este Reglamento:

1. los sonidos emitidos por los proyectos temporeros para la reparación y mantenimiento de hogares y sus dependencias,
2. los sonidos emitidos durante la instalación y reparación de servicios públicos esenciales, y
3. los sonidos emitidos por un disparo de armas livianas de fuego en polígonos de tiro autorizados.

B. Emergencias

No se considerará contaminación por ruido aquel sonido que, generado en exceso de los niveles autorizados en este Reglamento, sea realizado al efectuarse un trabajo de emergencia, según definido en este Reglamento, para proteger la salud, seguridad o bienestar inmediato de la comunidad o individuos, o restauración de la propiedad como medida de seguridad luego de un desastre. Nada de lo contenido en este inciso se entenderá como que permite al personal de emergencia, policías, bomberos o conductores de

ambulancias y otros similares a producir ruidos durante el cumplimiento de sus deberes cuando tales ruidos sean claramente innecesarios.

C. Excepciones generales

Las siguientes situaciones se considerarán como excepciones adicionales a la prohibición de ruidos, según definido en este Reglamento:

1. los sonidos emitidos por artefactos para la prevención de accidentes;
2. los sonidos emitidos por asambleas, actos públicos y paradas no rutinarias;
3. los sonidos emitidos por el disparo de armas livianas de fuego durante la temporada de caza siempre que se produzcan en áreas designadas para esos fines;
4. los sonidos emitidos por las calderas de refinerías de petróleo y las plantas generatrices de electricidad durante el encendido de esas calderas;
5. los sonidos emitidos por campanas, campanarios y/o carillones que se extienden hasta quince (15) minutos;
6. el sonido emitido por la voz humana no amplificada;
7. el sonido emitido por los animales;
8. el sonido emitido por el encendido de plantas de emergencia como parte del proceso de calentamiento, siempre que no exceda los diez (10) minutos; y
9. el sonido emitido por los aeroplanos, ya que el mismo está regulado por la Ley Federal de la Administración Federal de Aviación (Federal Aviation Administration) y las normas de ruido establecidas por la Agencia Federal de Protección Ambiental (*Environmental Protection Agency*) para la manufactura de nuevos productos.

D. La mejor tecnología de control

Nada de lo contenido en esta sección se entenderá como que impedirá a la JCA requerir la instalación de la mejor tecnología de control de ruido disponible en el mercado para aquellas actividades que se declaran exentas de las disposiciones de este Reglamento.

REGLA 30 – CONSEJO ASESOR PARA ASUNTOS RELIGIOSOS

El Director Ejecutivo de la JCA constituirá un Consejo Asesor sobre Asuntos Religiosos para asesorar a la JCA en el establecimiento de la política pública ambiental que de alguna manera incida en el derecho constitucional de libre culto que les asiste a las instituciones religiosas en Puerto Rico. Este Consejo Asesor estará compuesto, entre otros, por líderes de organizaciones religiosas debidamente establecidas en Puerto Rico. Dicho Consejo Asesor establecerá su organización interna.

REGLA 31 – CRITERIOS PARA LA TOMA DE MEDICIONES

Los siguientes criterios serán utilizados para identificar condiciones que requieren la mitigación de ruidos relacionados al tránsito en las vías públicas, siempre que éstos sean la fuente emisora más prominente. Esta evaluación requiere la determinación del nivel equivalente, L_{eq} 1hr (1HL), correspondiente a la hora del día o de la noche en que se registra el mayor impacto de ruido, según se describe en la Tabla II.

**TABLA II
CRITERIOS PARA LA TOMA DE MEDICIONES**

CATEGORÍA	1HL	DESCRIPCIÓN DE USOS Y ACTIVIDADES
A	57 dBA (exterior)	Lugares que requieren tranquilidad excepcional y preservación del ambiente
B	67 dBA (exterior)	Viviendas, hoteles, parques, iglesias, escuelas, bibliotecas, hospitales
C	72 dBA (exterior)	Desarrollos no incluidos en A y B, y comercios e industrias
D	(No hay límites establecidos)	Tierras no desarrolladas
E	52 dBA (interior)	Viviendas, hoteles, edificios públicos, iglesias, escuelas, bibliotecas, hospitales, auditorios, edificios comerciales

Estos criterios son cónsonos con las recomendaciones de la Administración Federal de Carreteras (*Federal Highway Administration*). Como los límites indicados no representan condiciones normales aceptables, se recomienda en cada caso la implantación de mitigación de ruidos que provean atenuación mínima del orden de 10 dB(A).

REGLA 32-33- RESERVADAS

PARTE VI: VALORACIÓN DE LOS NIVELES SONOROS

REGLA 34 – APLICABILIDAD

Esta Parte aplicará a todo procedimiento en el que se valorará el nivel sonoro, incluyendo el equipo utilizado.

REGLA 35 – CONSIDERACIONES GENERALES SOBRE EQUIPO SONOMÉTRICO

- A. El sonómetro deberá cumplir con las normas de la *American National Standards Institute* para instrumentos Tipo I o Tipo II, las cuales están disponibles en la Biblioteca de la JCA.
- B. El sonómetro tiene que estar en total funcionamiento y deberá tener baterías con la carga suficiente para evitar que el aparato indique necesidad de reemplazo de baterías durante una medición.
- C. El sonómetro tiene que ser verificado en su calibración antes y después de cada medición sonométrica.

REGLA 36 – PROTOCOLO PARA MEDICIONES SONOMÉTRICAS

- A. Se utilizará un sonómetro para determinar el nivel de sonido L_{10} . Se determinará el valor de L_{10} registrado en un intervalo no menor de treinta (30) minutos de duración. Deberá considerarse si la fuente emisora opera el mínimo de tres (3) minutos, que es el nivel de sonido correspondiente al L_{10} del periodo de medición. Se podrán tomar muestras adicionales para asegurarse que dichas medidas son representativas de las emisiones de la fuente, según medidas en la zona receptora correspondiente.
- B. Se empleará la escala de ponderación de frecuencias A ("A-weighting") en todas las mediciones. Los niveles de sonido se indicarán en dB(A).

- C. La respuesta del detector del sonómetro ("response") se colocará en la posición de integración rápida ("fast") y si las oscilaciones de la lectura fueran superiores a 4 ó 5 dB(A), se cambiará a respuesta lenta ("slow").

REGLA 37 – RUIDO DE FONDO

A. Consideraciones

1. El ruido de fondo no debe "ahogar" la señal que es de interés.
2. El nivel de la señal (fuente emisora) debe ser por lo menos de 3 dB superior al ruido de fondo.
3. Si el nivel de ruido de fondo es 3 dB menos que la fuente generante, no se realizará una medición de precisión del efecto de la fuente sonora.
4. La medición de ruido de fondo se realizará en términos de la estadística L_{spi} , según medido durante un intervalo continuo no menor de tres (3) minutos de duración.
5. Se podrán tomar muestras adicionales del nivel de ruido de fondo para asegurar que las medidas obtenidas son representativas del ambiente acústico existente en el lugar.
6. Si el operador de la fuente causante del ruido no acata la solicitud del funcionario de la JCA para detener el equipo o las actividades ruidosas durante el tiempo requerido para realizar las mediciones de ruido de fondo o el operador de la fuente no se encuentra en la facilidad, o por situaciones de emergencia y/o seguridad no sea posible detener el equipo o las actividades ruidosas, no se incluirá ajuste alguno por ruido de fondo. Bajo estas circunstancias se asumirá que los niveles de ruido observados son causados enteramente por la fuente emisora. Dicho hecho se hará constar como parte del informe realizado.

B. Procedimiento a seguir en condiciones de un nivel de ruido de fondo elevado:

1. Se tomará la medida del nivel de sonido con la fuente de ruido funcionando (L_{sn}).
2. Se tomará la medida del nivel de ruido de fondo con la fuente detenida (L_n).
3. Se calculará la diferencia entre ambas lecturas: ($L_{sn} - L_n$).

C. Procedimiento para medir el nivel sonoro de una fuente emisora bajo condiciones de un ruido de fondo.

1. Medir el nivel de sonido total (L_{s+n}) con la fuente de ruido funcionando, medido según indicado en este Reglamento.
2. Medir L_{10} del nivel de ruido de fondo (L_n) con la fuente apagada, medido según indicado en este Reglamento.
3. Determinar la diferencia entre ambas lecturas ($L_{s+n} - L_n$).
4. Determinar la diferencia entre los niveles de la fuente y el ruido de fondo (L_s).
5. Realizar la corrección correspondiente, según se describe en el siguiente inciso, y comparar dicho nivel corregido con los límites regulatorios correspondientes, según especificados en este Reglamento, a fin de evaluar el cumplimiento con el mismo.

D. Condiciones para calcular la corrección correspondiente a fin de ajustar el nivel de ruido medido en la presencia de ruido de fondo.

1. Si el L_s es menor de 3 dB, el nivel de ruido de fondo es muy alto para una medición precisa del efecto de la fuente sonora.
2. Si el L_s está entre 3 y 10 dB, será necesaria una corrección al nivel de sonido de la fuente.
3. Si el L_s es mayor de 10 dB, no se requiere una corrección al nivel medido de la fuente de ruido.
4. Si el ruido de fondo es despreciable, se puede registrar directamente el nivel de ruido de dicha fuente (L_s) y determinar si cumple o no con el nivel reglamentario.

E. Corrección cuando el ruido de fondo es inferior al límite establecido en este Reglamento.

Cuando el ruido de fondo es inferior al límite establecido en la Tabla I de este Reglamento, es importante realizar la siguiente corrección, de manera que se incluya el efecto del ruido de fondo:

TABLA III
CORRECCIÓN AL NIVEL DE RUIDO DE FONDO

Nivel de ruido de fondo L_n relativo a L_{JCA}	Nivel total permitido
De 0 hasta 3 dB	$L_{JCA} + 3$ dB
Mayor de 3 hasta 6 dB	$L_{JCA} + 2$ dB
Mayor de 6 hasta 10 dB	$L_{JCA} + 1$ dB
Mayor de 10 dB	$L_{JCA} + 0$ dB

REGLA 38 – CONSIDERACIONES GENERALES SOBRE EL LUGAR DE MEDICIÓN

- A. La medición de nivel sonoro se llevará a cabo en un lugar en que su valor sea más alto y, si fuera preciso, en el momento y situación en que las molestias sean más intensas para los afectados o querellantes.
- B. Las mediciones se tomarán en diferentes puntos en el área exterior del predio receptor, típicamente en las colindancias. En caso de edificios o apartamentos, los balcones y ventanas pueden ser utilizados para estos propósitos. Se utilizarán los valores del nivel sonoro registrados en espacios interiores (habitaciones, pasillos, entre otros), cuando no haya otro espacio adecuado para la realización de la medición.
- C. Los dueños de las fuentes emisoras, ubicadas tanto al aire libre como en establecimientos y locales interiores, facilitarán a los técnicos de la JCA el acceso a sus instalaciones o fuente de emisión de ruidos y pondrán en funcionamiento dichas fuentes emisoras a las distintas velocidades, cargas y marchas que les indique el personal técnico de la JCA. El dueño u operador podrá presenciar el proceso operativo en todos sus detalles.

REGLA 39 – PRECAUCIONES EN LA METODOLOGÍA

A fin de reducir los posibles errores de medición, se adoptarán las siguientes precauciones:

- A. Contra el efecto de pantalla: el técnico se situará en el plano normal (perpendicular) al eje del micrófono y lo más separado del mismo que sea posible, en forma compatible con la lectura del indicador de medida del sonómetro.

- B. Contra el efecto de las reflexiones sonoras: para evitar la influencia de ondas estacionarias o reflejadas, se situará el sonómetro, de ser posible, a más de 1.2 metros (4 pies) de cualquier pared o superficie reflectante. Es importante ilustrar, mediante un dibujo o plano, la colocación del sonómetro con relación a dichas superficies.
- C. Contra el efecto del viento: el técnico, cuando estime que la velocidad del viento es superior a 1.5 metros/segundo (3 mph), empleará una pantalla ("windscreen") contra el viento. Para velocidades superiores a 3 metros/segundos (7 mph), se desistirá de la medición.

REGLA 40 – PROCEDIMIENTO PARA LA REALIZACIÓN DE ESTUDIOS SONOROS

- A. Se realizarán estudios detallados en circunstancias especiales donde se requiera una caracterización exhaustiva de una fuente de ruido con características especiales. Cada estudio será diseñado por personal técnico de la JCA tomando en consideración todos los aspectos reglamentarios.
- B. Cuando existan tonos prominentes o ruidos impulsivos, el nivel máximo permitido quedará medido según

$$L_{JCA} = L_{eq} + K_i + K_t,$$

donde

L_{JCA} es el nivel máximo permitido a la fuente por este Reglamento, excluyendo la influencia del ruido de fondo,

L_{eq} es el nivel equivalente de sonido observado,

K_i es la penalización por ruidos impulsivos ($L_{im} - L_{eq}$) y en el que L_{im} es el nivel máximo de presión observado con detección de "impulsos", y

K_t es la penalización por tonos prominentes.

- C. Para la evaluación de ruidos de impulso, se efectuarán mediciones breves de cinco (5) segundos de duración con el sonómetro en el modo de detección de impulsos "I". De este modo, se determinará la diferencia entre el nivel de los impulsos L_{im} y el valor de L_{eq} correspondiente a dicho intervalo. No se tendrán en cuenta valores de K_i iguales o inferiores a 2dB y la penalización máxima será de 5 dB.

REGLA 41 – MÉTODOS ALTERNOS DE MEDICIÓN

Cualquier persona que solicite autorización para utilizar un método analítico o una prueba alterna a lo establecido en este Reglamento, solicitará y demostrará a satisfacción de la JCA, que el método propuesto es igual o superior al establecido en este Reglamento en términos de precisión, exactitud

y sensibilidad de los procedimientos y equipos utilizados. De igual forma, debe demostrar que el equipo a utilizarse ha sido calibrado y que tal calibración se encuentra vigente.

REGLA 42-43- RESERVADAS

PARTE VII: PLANES DE CUMPLIMIENTO, DISPENSAS Y AUTORIZACIONES DE EMERGENCIA

REGLA 44 – PLANES DE CUMPLIMIENTO

A. Aplicabilidad

Los Planes de Cumplimiento son aplicables a fuentes emisoras o predios originadores de sonido que estén en violación de cualquiera de los requisitos de este Reglamento. La aprobación de los mismos no limita la facultad de la JCA para requerir acciones específicas con relación a tales violaciones. Estos planes no son aplicables a la Parte IV de este Reglamento.

B. Prohibición de operar

Ninguna persona podrá construir, operar o permitir la construcción u operación de una fuente emisora de sonido en violación a cualquier requisito de este Reglamento, a menos que el dueño u operador de la fuente de emisión opere conforme a un Plan de Cumplimiento o Dispensa aprobada por la JCA.

C. Requisitos del Plan de Cumplimiento

El Plan de Cumplimiento será presentado ante la Junta de Gobierno de la JCA y cumplirá con los siguientes requisitos:

1. Deberán ser firmados por el dueño u operador de una fuente emisora de sonido o ruido cuando se haya comenzado una acción para la cual se requiera cumplimiento con los requisitos de este Reglamento.
2. Establecerá acciones de progreso para alcanzar las metas específicas y para la instalación de los controles necesarios mediante la construcción y modificación de su fuente emisora, así como la fecha límite en las que serán alcanzadas estas acciones de progreso.

3. Establecerá fechas límites para alcanzar cumplimiento con cada requisito que esté violando. El tiempo final de cumplimiento para el control de la contaminación por ruido que se requiera para llevar a cabo los objetivos del Plan, será el más corto que pueda lograrse, pero en ningún caso, mayor de noventa (90) días laborables.
4. Notificará, mediante informes periódicos a la JCA, su cumplimiento con las acciones de progreso y las metas específicas.

D. Normas para la aprobación de los Planes de Cumplimiento

1. El solicitante demostrará, a satisfacción de la JCA, que el Plan de Cumplimiento:
 - a. no causará incumplimiento con los requisitos de la Ley sobre Política Pública Ambiental, *supra*;
 - b. establecerá pautas para el cumplimiento final de las metas propuestas tan rápidamente como sea factible;
 - c. establecerá pautas para medir las acciones de progreso y el logro de metas temporales que brindan la protección máxima para la salud humana y el ambiente.
2. La JCA actuará sobre el Plan de Cumplimiento propuesto dentro de un término razonable que no deberá exceder de noventa (90) días laborables.

E. Modificación o revocación de la aprobación de un Plan de Cumplimiento

1. La JCA podrá modificar o revocar un Plan de Cumplimiento previamente aprobado cuando se den las siguientes situaciones:
 - a. cuando sea necesario para la protección de la salud humana y el ambiente;
 - b. cuando exista una condición de emergencia;
 - c. cuando se identifique alguna información que altere el razonamiento seguido en la concesión del Plan de Cumplimiento;
 - d. cuando se proponga un cambio significativo en el el Plan de Cumplimiento aprobado; y

- e. cuando la JCA así lo determine necesario.
2. Si la JCA decide denegar la solicitud de modificación o revocación, enviará por escrito al peticionario una denegatoria exponiendo las razones de su decisión de acuerdo a lo establecido en la Ley de Procedimiento Administrativo Uniforme, *supra*, y la Ley sobre Política Pública Ambiental, *supra*.

REGLA 45- DISPENSAS

A. Autorización para Dispensas

La Junta de Gobierno de la JCA podrá dispensar del estricto cumplimiento de los requisitos establecidos en este Reglamento únicamente mediante el trámite establecido en esta Regla.

B. Solicitud de Dispensa

Toda solicitud de dispensa presentada ante la Junta de Gobierno de la JCA incluirá lo siguiente:

1. una descripción de la Regla para la cual se solicita dispensa, exponiendo claramente la naturaleza y alcance de lo que se propone;
2. una exposición por escrito de las razones para la petición de aprobación de la dispensa, e incluirá una explicación de por qué no será factible el cumplimiento;
3. un estudio acústico de los niveles de ruido en los límites de la propiedad;
4. una expresión del término por el cual estará solicitando la dispensa;
5. evidencia de la implementación de la mejor tecnología disponible en el mercado para el cumplimiento con los límites establecidos en este Reglamento; y
6. cualquier otra información que la JCA determine necesaria para evaluar dicha solicitud.

C. Normas para conceder dispensas

La solicitud de dispensa será aprobada solamente si el solicitante demuestra a satisfacción de la Junta de Gobierno de la JCA que ha cumplido con los siguientes requisitos:

1. que la implementación de la mejor tecnología disponible no es suficiente para cumplir con las disposiciones de este Reglamento;
2. que la dispensa no causará impacto adverso significativo sobre la salud humana o el ambiente; y
3. que existen circunstancias especiales que justifiquen la concesión de la dispensa.

D. Acción sobre la solicitud de Dispensa

1. La Junta de Gobierno de la JCA, *motu proprio* o a solicitud de parte debidamente fundamentada, podrá, discrecionalmente, celebrar una vista administrativa previo al otorgamiento de una dispensa, según los requisitos que para ello se disponen en este Reglamento.
2. La Junta de Gobierno de la JCA notificará por escrito al solicitante de la dispensa o la solicitud de vista, si la misma fue concedida o denegada.
3. En la notificación sobre la dispensa de la que habla el inciso anterior, la Junta de Gobierno de la JCA expondrá las razones que tuvo para la acción tomada.

E. Condiciones para la Concesión de Dispensas

Al conceder una dispensa, la Junta de Gobierno de la JCA podrá imponer las condiciones que considere necesarias para la protección de la salud, seguridad y bienestar público.

F. Período de Vigencia

1. Una dispensa se mantendrá en vigor por el periodo de tiempo que determine la Junta de Gobierno de la JCA, el cual no podrá exceder de cuatro (4) años. Para gestionar la renovación o extensión de la misma, el dueño u operador del predio originador de sonido deberá radicar una solicitud a tales efectos con por lo menos noventa (90) días de anticipación a la fecha en que la dispensa original expire.
2. Cualquier solicitud de renovación o extensión deberá ser presentada durante el término concedido. Posterior a esa fecha, el solicitante tendrá que presentar una nueva solicitud de dispensa de conformidad con este Reglamento. Dicha renovación, extensión o nueva dispensa no podrá exceder de doce (12) meses de vigencia.

3. A partir de la fecha en que se radique la solicitud de dispensa, renovación o extensión de una dispensa, la Junta de Gobierno de la JCA deberá actuar sobre la misma, de acuerdo a las reglas y reglamentos vigentes.

REGLA 46 – AVISOS PÚBLICOS Y VISTAS PÚBLICAS PARA EL TRÁMITE DE LAS DISPENSAS

A. Avisos Públicos

1. Todo aviso público relacionado con un asunto pendiente ante la JCA bajo este Reglamento, especificará la fecha, hora y lugar donde los documentos estarán disponibles para inspección pública. Estos documentos incluirán cualquier determinación preliminar de la JCA.
2. Todo aviso público indicará el periodo de tiempo durante el que las personas interesadas podrán someter comentarios escritos o solicitar, de forma fundamentada, vistas públicas. El aviso especificará la fecha, hora y el lugar de cada vista pública, así como horario de duración de la vista y término de espera para declararla desierta de no comparecer público.
3. Todo aviso público será publicado por lo menos treinta (30) días antes de que la JCA tome cualquier determinación final con respecto a cualquier asunto pendiente ante su consideración, a menos que por una situación de emergencia la JCA determine que, en el mejor interés público, sea necesario que se haga una determinación final en un periodo de tiempo más corto.
4. El aviso público podrá publicarse en un (1) periódico de circulación general en Puerto Rico o por cualquier otro método que disponga la Junta de Gobierno de la JCA. En los casos en que los avisos públicos sean para considerar una solicitud de dispensa y/o autorización ante la JCA, el solicitante de la misma sufragará cualquier costo relacionado a su publicación, previo a que sea publicado.
5. La JCA podrá publicar avisos adicionales o avisos de cualquier otra índole en la forma que considere apropiada.

B. Vistas Públicas

1. La JCA podrá celebrar, a su discreción, una vista pública sobre el otorgamiento de una dispensa o cualquier otro asunto pendiente ante ella, mediante solicitud debidamente fundamentada por cualquier persona interesada o cuando la JCA determine que la celebración de

una vista pública ayudará a evaluar la situación ante su consideración. La JCA no celebrará vistas públicas sin publicar un aviso notificando la celebración de la misma. Para determinar si se concede la celebración de vistas públicas, la Junta de Gobierno de la JCA tomará en consideración los siguientes factores:

- a. la magnitud y naturaleza de la solicitud y la cuantía de la inversión necesaria;
 - b. el grado de interés de parte del público en la acción a llevarse a cabo; y
 - c. el grado de interés de parte de la JCA y de otras agencias gubernamentales en la acción a llevarse a cabo, entre otros factores relevantes.
2. La Junta de Gobierno de la JCA podrá presidir la vista pública por sí o a través de un panel examinador.
 3. La vista pública deberá iniciarse a la hora indicada en el aviso público y de no haber presente ninguna persona interesada en deponer en la misma, ésta podrá darse por culminada luego de una (1) hora de la hora indicada en el aviso público. El horario de duración de la vista estará incluido en el aviso público.
 4. El registro de deponentes de la vista pública estará disponible para inspección del público en general.

C. Los comentarios recibidos

Todos los comentarios recibidos durante el periodo de participación pública serán evaluados por la JCA al momento de tomar una determinación final sobre el asunto en cuestión, según la Ley sobre Política Pública Ambiental, *supra*, y Ley de Procedimiento Administrativo Uniforme, *supra*.

D. Decisión final

Luego de celebrada una vista pública, la Junta de Gobierno de la JCA preparará una resolución que detalle su decisión final. Esta resolución deberá cumplir con los requisitos de notificación, según dispuestos en la Ley sobre Política Pública Ambiental, *supra*, y Ley de Procedimiento Administrativo Uniforme, *supra*, así como en cualquier otra legislación aplicable.

REGLA 47 – REVOCACIÓN DE PLAN DE CUMPLIMIENTO, DISPENSAS O AUTORIZACIONES

La JCA podrá decretar el cese de operaciones o revocar un Plan de Cumplimiento o dispensa que haya sido encontrado en violación de este Reglamento o de las condiciones del mismo, de acuerdo a la Ley sobre Política Pública Ambiental, *supra*, la Ley de Procedimiento Administrativo Uniforme, *supra*, y el Reglamento de Procedimiento de Vistas Administrativas, *supra*. La Orden de Cese será efectiva hasta tanto la fuente emisora se encuentre en cumplimiento con este Reglamento y así lo disponga la JCA mediante Resolución al respecto en la que ordene el dejar sin efecto dicha Orden o así lo ordene un tribunal con jurisdicción y competencia.

REGLA 48 – AUTORIZACIÓN DE EMERGENCIA

A. Autorización en caso de emergencia

1. Si la Junta de Gobierno de la JCA encuentra que existe un peligro significativo e inminente para la salud humana o el ambiente, podrá expedir una autorización de emergencia para personas o fuentes emisoras no autorizadas.
2. Estas autorizaciones podrán incluir dispensas a reglas específicas de este Reglamento, según se establece en la Regla sobre dispensas.

B. Disposiciones para autorizaciones de emergencias

Las autorizaciones para casos de emergencias cumplirán con los siguientes requisitos:

1. Según las circunstancias, éstas podrán ser verbales o escritas. Si la autorización es verbal, inmediatamente deberá producirse una autorización escrita, la cual se expedirá dentro de un término de cinco (5) días después de concedida la autorización verbal.
2. No tendrán una duración mayor de noventa (90) días.
3. Especificarán claramente la fuente emisora.
4. Incorporarán, hasta el máximo factible que no sea inconsistente con la situación de emergencia, todos los requisitos de este Reglamento.
5. Podrán ser revocadas por la Junta de Gobierno de la JCA en cualquier momento, si se determina que dicha revocación es necesaria para

proteger la salud humana o el ambiente.

GOBIERNO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE CALIDAD AMBIENTAL

A tenor y de acuerdo con la Ley sobre Política Pública Ambiental, Ley Núm. 416 de 22 de septiembre de 2004, según enmendada, ha sido enmendado por la **Resolución R-11-7-1** de la Junta de Gobierno de la Junta de Calidad Ambiental el

REGLAMENTO PARA EL CONTROL DE LA CONTAMINACIÓN POR RUIDOS

Estas enmiendas al Reglamento establecen las normas y requisitos para el control, disminución o eliminación de ruidos que puedan resultar nocivos a la salud y perturbar el bienestar público. Establece, además, los requisitos para los niveles de emisiones de ruido entre zonas, así como la administración y procedimientos relacionados con la valoración de los niveles sonoros.

Aprobado: 5 de mayo de 2011

En virtud de la Sección 2.8 de la Ley Núm. 170 de 12 de agosto de 1988, según enmendada, conocida como Ley de Procedimiento Administrativo Uniforme, (3 L.P.R.A sección 2128), este Reglamento entra en vigencia a los treinta (30) días a partir de su radicación en el Departamento de Estado,



Sr. Reynaldo Matos Jiménez
Miembro Asociado



Lda. Blanche Gonzalez Hodge
Miembro Asociado



Lcdo. Pedro J. Nieves Miranda
Presidente

ELECTRONIC CODE OF FEDERAL REGULATIONS

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Title 24: Housing and Urban Development

PART 51—ENVIRONMENTAL CRITERIA AND STANDARDS

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AUTHORITY: 42 U.S.C. 3535(d), unless otherwise noted.

SOURCE: 44 FR 40861, July 12, 1979, unless otherwise noted.

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Subpart A—General Provisions

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§51.1 Purpose.

The Department of Housing and Urban Development is providing program Assistant Secretaries and administrators and field offices with environmental standards, criteria and guidelines for determining project acceptability and necessary mitigating measures to insure that activities assisted by the Department achieve the goal of a suitable living environment.

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§51.2 Authority.

This part implements the Department's responsibilities under: The National Housing Act (12 U.S.C. 1701 *et seq.*); sec. 2 of the Housing Act of 1949 (42 U.S.C. 1441); secs. 2 and 7(d) of the Department of Housing and Urban Development Act (42 U.S.C. 3531 and 3535(d)); the National Environmental Policy Act of 1969 (42 U.S.C. 4321); and the other statutes that are referred to in this part.

[61 FR 13333, Mar. 26, 1996]

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§51.3 Responsibilities.

The Assistant Secretary for Community Planning and Development is responsible for administering HUD's environmental criteria and standards as set forth in this part. The Assistant Secretary for Community Planning and Development may be assisted by HUD officials in implementing the responsibilities established by this part. HUD will identify these HUD officials and their specific responsibilities through FEDERAL REGISTER notice.

[61 FR 13333, Mar. 26, 1996]

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§51.4 Program coverage.

Environmental standards shall apply to all HUD actions except where special provisions and exemptions are contained in each subpart.

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Subpart B—Noise Abatement and Control

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§51.100 Purpose and authority.

- (a) It is the purpose of this subpart B to:
 - (1) Call attention to the threat of noise pollution;

(2) Encourage the control of noise at its source in cooperation with other Federal departments and agencies;

(3) Encourage land use patterns for housing and other noise sensitive urban needs that will provide a suitable separation between them and major noise sources;

(4) Generally prohibit HUD support for new construction of noise sensitive uses on sites having unacceptable noise exposure;

(5) Provide policy on the use of structural and other noise attenuation measures where needed; and

(6) Provide policy to guide implementation of various HUD programs.

(b) *Authority.* Specific authorities for noise abatement and control are contained in the Noise Control Act of 1972, as amended (42 U.S.C. 4901 *et seq.*); and the General Services Administration, Federal Management Circular 75-2; *Compatible Land Uses at Federal Airfields.*

[44 FR 40861, July 12, 1979, as amended at 61 FR 13333, Mar. 26, 1996]

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§51.101 General policy.

(a) It is HUD's general policy to provide minimum national standards applicable to HUD programs to protect citizens against excessive noise in their communities and places of residence.

(1) *Planning assistance.* HUD requires that grantees give adequate consideration to noise exposures and sources of noise as an integral part of the urban environment when HUD assistance is provided for planning purposes, as follows:

(i) Particular emphasis shall be placed on the importance of compatible land use planning in relation to airports, highways and other sources of high noise.

(ii) Applicants shall take into consideration HUD environmental standards impacting the use of land.

(2) *Activities subject to 24 CFR part 58.* (i) Responsible entities under 24 CFR part 58 must take into consideration the noise criteria and standards in the environmental review process and consider ameliorative actions when noise sensitive land development is proposed in noise exposed areas. Responsible entities shall address deviations from the standards in their environmental reviews as required in 24 CFR part 58.

(ii) Where activities are planned in a noisy area, and HUD assistance is contemplated later for housing and/or other noise sensitive activities, the responsible entity risks denial of the HUD assistance unless the HUD standards are met.

(3) *HUD support for new construction.* HUD assistance for the construction of new noise sensitive uses is prohibited generally for projects with unacceptable noise exposures and is discouraged for projects with normally unacceptable noise exposure. (Standards of acceptability are contained in §51.103(c).) This policy applies to all HUD programs providing assistance, subsidy or insurance for housing, manufactured home parks, nursing homes, hospitals, and all programs providing assistance or insurance for land development, redevelopment or any other provision of facilities and services which are directed to making land available for housing or noise sensitive development. The policy does not apply to research demonstration projects which do not result in new construction or reconstruction, flood insurance, interstate land sales registration, or any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster.

(4) *HUD support for existing construction.* Noise exposure by itself will not result in the denial of HUD support for the resale and purchase of otherwise acceptable existing buildings. However, environmental noise is a marketability factor which HUD will consider in determining the amount of insurance or other assistance that may be given.

(5) *HUD support of modernization and rehabilitation.* For modernization projects located in all noise exposed areas, HUD shall encourage noise attenuation features in alterations. For major or substantial rehabilitation projects in the Normally Unacceptable and Unacceptable noise zones, HUD actively shall seek to have project sponsors incorporate noise attenuation features, given the extent and nature of the rehabilitation being undertaken and the level or exterior noise exposure. In Unacceptable noise zones, HUD shall strongly encourage conversion of noise-exposed sites to land uses compatible with the high noise levels.

(6) *Research, guidance and publications.* HUD shall maintain a continuing program designed to provide new knowledge of noise abatement and control to public and private bodies, to develop improved methods for anticipating noise encroachment, to develop noise abatement measures through land use and building construction practices, and to foster better understanding of the consequences of noise. It shall be HUD's policy to issue guidance documents periodically to assist HUD personnel in assigning an acceptability category to projects in accordance with noise exposure standards, in evaluating noise attenuation measures, and in advising local agencies about noise abatement strategies. The guidance documents shall be updated periodically in accordance with advances in the state-of-the-art.

(7) *Construction equipment, building equipment and appliances.* HUD shall encourage the use of quieter construction equipment and methods in population centers, the use of quieter equipment and appliances in buildings, and the use of appropriate noise abatement techniques in the design of residential structures with potential noise problems.

(8) *Exterior noise goals.* It is a HUD goal that exterior noise levels do not exceed a day-night average sound level of 55 decibels. This level is recommended by the Environmental Protection Agency as a goal for outdoors in residential areas. The levels recommended by EPA are not standards and do not take into account cost or feasibility. For the purposes of this regulation and to meet other program objectives, sites with a day-night average sound level of 65 and below are acceptable and are allowable (see Standards in §51.103(c)).

(9) *Interior noise goals.* It is a HUD goal that the interior auditory environment shall not exceed a day-night average sound level of 45 decibels. Attenuation measures to meet these interior goals shall be employed where feasible. Emphasis shall be given to noise sensitive interior spaces such as bedrooms. Minimum attenuation requirements are prescribed in §51.104(a).

(10) *Acoustical privacy in multifamily buildings.* HUD shall require the use of building design and acoustical treatment to afford acoustical privacy in multifamily buildings pursuant to requirements of the Minimum Property Standards.

[44 FR 40861, July 12, 1979, as amended at 50 FR 9268, Mar. 7, 1985; 61 FR 13333, Mar. 26, 1996]

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§51.102 Responsibilities.

(a) *Surveillance of noise problem areas.* Appropriate field staff shall maintain surveillance of potential noise problem areas and advise local officials, developers, and planning groups of the unacceptability of sites because of noise exposure at the earliest possible time in the decision process. Every attempt shall be made to insure that applicants' site choices are consistent with the policy and standards contained herein.

(b) *Notice to applicants.* At the earliest possible stage, HUD program staff shall:

(1) Determine the suitability of the acoustical environment of proposed projects;

(2) Notify applicants of any adverse or questionable situations; and

(3) Assure that prospective applicants are apprised of the standards contained herein so that future site choices will be consistent with these standards.

(c) *Interdepartmental coordination.* HUD shall foster appropriate coordination between field offices and other departments and agencies, particularly the Environmental Protection Agency, the Department of Transportation, Department of Defense representatives, and the Department of Veterans Affairs. HUD staff shall utilize the acceptability standards in commenting on the prospective impacts of transportation facilities and other noise generators in the Environmental Impact Statement review process.

[44 FR 40861, July 12, 1979, as amended at 54 FR 39525, Sept. 27, 1989; 61 FR 13333, Mar. 26, 1996]

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§51.103 Criteria and standards.

These standards apply to all programs as indicated in §51.101.

(a) *Measure of external noise environments.* The magnitude of the external noise environment at a site is determined by the value of the day-night average sound level produced as the result of the accumulation of noise from all sources contributing to the external noise environment at the site. Day-night average sound level, abbreviated as DNL and symbolized as L_{dn} , is the 24-hour average sound level, in decibels, obtained after addition of 10 decibels to sound levels in the night from 10 p.m. to 7 a.m. Mathematical expressions for average sound level and day-night average sound level are stated in the Appendix I to this subpart.

(b) *Loud impulsive sounds.* On an interim basis, when loud impulsive sounds, such as explosions or sonic booms, are experienced at a site, the day-night average sound level produced by the loud impulsive sounds alone shall have 8 decibels added to it in assessing the acceptability of the site (see appendix I to this subpart). Alternatively, the C-weighted day-night average sound level (L_{Cdn}) may be used without the 8 decibel addition, as indicated in §51.106(a)(3). Methods for assessing the contribution of loud impulsive sounds to day-night average sound level at a site and mathematical expressions for determining whether a sound is classed as “loud impulsive” are provided in the appendix I to this subpart.

(c) *Exterior standards.* (1) The degree of acceptability of the noise environment at a site is determined by the sound levels external to buildings or other facilities containing noise sensitive uses. The standards shall usually apply at a location 2 meters (6.5 feet) from the building housing noise sensitive activities in the direction of the predominant noise source. Where the building location is undetermined, the standards shall apply 2 meters (6.5 feet) from the building setback line nearest to the predominant noise source. The standards shall also apply at other locations where it is determined that quiet outdoor space is required in an area ancillary to the principal use on the site.

(2) The noise environment inside a building is considered acceptable if: (i) The noise environment external to the building complies with these standards, and (ii) the building is constructed in a manner common to the area or, if of uncommon construction, has at least the equivalent noise attenuation characteristics.

SITE ACCEPTABILITY STANDARDS

	Day-night average sound level (in decibels)	Special approvals and requirements
Acceptable	Not exceeding 65 dB(1)	None.
Normally Unacceptable	Above 65 dB but not exceeding 75 dB	Special Approvals (2)
		Environmental Review (3).

		Attenuation (4).
Unacceptable	Above 75 dB	Special Approvals (2).
		Environmental Review (3).
		Attenuation (5).

Notes: (1) Acceptable threshold may be shifted to 70 dB in special circumstances pursuant to §51.105(a).

(2) See §51.104(b) for requirements.

(3) See §51.104(b) for requirements.

(4) 5 dB additional attenuation required for sites above 65 dB but not exceeding 70 dB and 10 dB additional attenuation required for sites above 70 dB but not exceeding 75 dB. (See §51.104(a).)

(5) Attenuation measures to be submitted to the Assistant Secretary for CPD for approval on a case-by-case basis.

[44 FR 40861, July 12, 1979, as amended at 49 FR 12214, Mar. 29, 1984]

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§51.104 Special requirements.

(a)(1) *Noise attenuation.* Noise attenuation measures are those required in addition to attenuation provided by buildings as commonly constructed in the area, and requiring open windows for ventilation. Measures that reduce external noise at a site shall be used wherever practicable in preference to the incorporation of additional noise attenuation in buildings. Building designs and construction techniques that provide more noise attenuation than typical construction may be employed also to meet the noise attenuation requirements.

(2) *Normally unacceptable noise zones and unacceptable noise zones.* Approvals in Normally Unacceptable Noise Zones require a minimum of 5 decibels additional sound attenuation for buildings having noise-sensitive uses if the day-night average sound level is greater than 65 decibels but does not exceed 70 decibels, or a minimum of 10 decibels of additional sound attenuation if the day-night average sound level is greater than 70 decibels but does not exceed 75 decibels. Noise attenuation measures in Unacceptable Noise Zones require the approval of the Assistant Secretary for Community Planning and Development, or the Certifying Officer for activities subject to 24 CFR part 58. (See §51.104(b)(2).)

(b) *Environmental review requirements.* Environmental reviews shall be conducted pursuant to the requirements of 24 CFR parts 50 and 58, as applicable, or other environmental regulations issued by the Department. These requirements are hereby modified for all projects proposed in the Normally Unacceptable and Unacceptable noise exposure zones as follows:

(1) *Normally unacceptable noise zone.* (i) All projects located in the Normally Unacceptable Noise Zone require a Special Environmental Clearance except an EIS is required for a proposed project located in a largely undeveloped area, or where the HUD action is likely to encourage the establishment of incompatible land use in this noise zone.

(ii) When an EIS is required, the concurrence of the Program Assistant Secretary is also required before a project can be approved. For the purposes of this paragraph, an area will be considered as largely undeveloped unless the area within a 2-mile radius of the project boundary is more than 50 percent developed for urban uses and infrastructure (particularly water and sewers) is available and has capacity to serve the project.

(iii) All other projects in the Normally Unacceptable zone require a Special Environmental Clearance, except where an EIS is required for other reasons pursuant to HUD environmental policies.

(2) *Unacceptable noise zone.* An EIS is required prior to the approval of projects with unacceptable noise exposure. Projects in or partially in an Unacceptable Noise Zone shall be submitted to the Assistant Secretary for Community Planning and Development, or the Certifying Officer for activities subject to 24 CFR part 58, for approval. The Assistant Secretary or the Certifying Officer may waive the EIS requirement in cases where noise is the only environmental issue and no outdoor noise sensitive activity will take place on the site. In such cases, an environmental review shall be made pursuant to the requirements of 24 CFR parts 50 or 58, as appropriate.

[44 FR 40861, July 12, 1979, as amended at 61 FR 13333, Mar. 26, 1996]

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§51.105 Exceptions.

(a) *Flexibility for non-acoustic benefits.* Where it is determined that program objectives cannot be achieved on sites meeting the acceptability standard of 65 decibels, the Acceptable Zone may be shifted to L_{dn} 70 on a case-by-case basis if all the following conditions are satisfied:

(1) The project does not require an Environmental Impact Statement under provisions of §51.104 (b)(1) and noise is the only environmental issue.

(2) The project has received a Special Environmental Clearance and has received the concurrence of the Environmental Clearance Officer.

(3) The project meets other program goals to provide housing in proximity to employment, public facilities and transportation.

(4) The project is in conformance with local goals and maintains the character of the neighborhood.

(5) The project sponsor has set forth reasons, acceptable to HUD, as to why the noise attenuation measures that would normally be required for new construction in the L_{dn} 65 to L_{dn} 70 zone cannot be met.

(6) Other sites which are not exposed to noise above L_{dn} 65 and which meet program objectives are generally not available.

The above factors shall be documented and made part of the project file.

[44 FR 40861, July 12, 1979, as amended at 61 FR 13334, Mar. 26, 1996]

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§51.106 Implementation.

(a) *Use of available data.* HUD field staff shall make maximum use of noise data prepared by others when such data are determined to be current and adequately projected into the future and are in terms of the following:

(1) *Sites in the vicinity of airports.* The noise environment around airports is described sometimes in terms of Noise Exposure Forecasts, abbreviated as NEF or, in the State of California, as Community Noise Equivalent Level, abbreviated as CNEL. The noise environment for sites in the vicinity of airports for which day-night average sound level data are not available may be evaluated from NEF or CNEL analyses using the following conversions to DNL:

DNL≈NEF+35

DNL≈CNEL

(2) *Sites in the vicinity of highways.* Highway projects receiving Federal aid are subject to noise analyses under the procedures of the Federal Highway Administration. Where such analyses are available they may be used to assess sites subject to the requirements of this standard. The Federal Highway Administration employs two alternate sound level descriptors: (i) The A-weighted sound level not exceeded more than 10 percent of the time for the highway design hour traffic flow, symbolized as L_{10} ; or (ii) the equivalent sound level for the design hour, symbolized as L_{eq} . The day-night average sound level may be estimated from the design hour L_{10} or L_{eq} values by the following relationships, provided heavy trucks do not exceed 10 percent of the total traffic flow in vehicles per 24 hours and the traffic flow between 10 p.m. and 7 a.m. does not exceed 15 percent of the average daily traffic flow in vehicles per 24 hours:

$DNL \approx L_{10}(\text{design hour}) - 3$ decibels

$DNL \approx L_{eq}(\text{design hour})$ decibels

Where the auto/truck mix and time of day relationships as stated in this section do not exist, the HUD Noise Assessment Guidelines or other noise analysis shall be used.

(3) *Sites in the vicinity of installations producing loud impulsive sounds.* Certain Department of Defense installations produce loud impulsive sounds from artillery firing and bombing practice ranges. Noise analyses for these facilities sometimes encompass sites that may be subject to the requirements of this standard. Where such analyses are available they may be used on an interim basis to establish the acceptability of sites under this standard. The Department of Defense uses day-night average sound level based on C-weighted sound level, symbolized L_{Cdn} , for the analysis of loud impulsive sounds. Where such analyses are provided, the 8 decibel addition specified in §51.103(b), is not required, and the same numerical values of day-night average sound level used on an interim basis to determine site suitability for non-impulsive sounds apply to the L_{Cdn} .

(4) *Use of areawide acoustical data.* HUD encourages the preparation and use of areawide acoustical information, such as noise contours for airports. Where such new or revised contours become available for airports (civil or military) and military installations they shall first be referred to the HUD State Office (Environmental Officer) for review, evaluation and decision on appropriateness for use by HUD. The HUD State Office shall submit revised contours to the Assistant Secretary for Community Planning and Development for review, evaluation and decision whenever the area affected is changed by 20 percent or more, or whenever it is determined that the new contours will have a significant effect on HUD programs, or whenever the contours are not provided in a methodology acceptable under §51.106(a)(1) or in other cases where the HUD State Office determines that Headquarters review is warranted. For other areawide acoustical data, review is required only where existing areawide data are being utilized and where such data have been changed to reflect changes in the measurement methodology or underlying noise source assumptions. Requests for determination on usage of new or revised areawide data shall include the following:

(i) Maps showing old, if applicable, and new noise contours, along with brief description of data source and methodology.

(ii) Impact on existing and prospective urbanized areas and on development activity.

(iii) Impact on HUD-assisted projects currently in processing.

(iv) Impact on future HUD program activity. Where a field office has determined that immediate approval of new areawide data is necessary and warranted in limited geographic areas, the request for approval should state the circumstances warranting such approval. Actions on proposed projects shall not be undertaken while new areawide noise data are being considered for HUD use except where the proposed location is affected in the same manner under both the old and new noise data.

(b) *Site assessments.* Compliance with the standards contained in §51.103(c) shall, where necessary, be determined using noise assessment guidelines, handbooks, technical documents and procedures issued by the Department.

(c) *Variations in site noise levels.* In many instances the noise environment will vary across a site, with portions of the site being in an Acceptable noise environment and other portions in a Normally Unacceptable noise environment. The standards in §51.103(c) shall apply to the portions of a building or buildings used for residential purposes and for ancillary noise sensitive open spaces.

(d) *Noise measurements.* Where noise assessments result in a finding that the site is borderline or questionable, or is controversial, noise measurements may be performed. Where it is determined that noise measurements are required, such measurements will be conducted in accordance with methods and measurement criteria established by the Department. Locations for noise measurements will depend on the location of noise sensitive uses that are nearest to the predominant noise source (see §51.103(c)).

(e) *Projections of noise exposure.* In addition to assessing existing exposure, future conditions should be projected. To the extent possible, noise exposure shall be projected to be representative of conditions that are expected to exist at a time at least 10 years beyond the date of the project or action under review.

(f) *Reduction of site noise by use of berms and/or barriers.* If it is determined by adequate analysis that a berm and/or barrier will reduce noise at a housing site, and if the barrier is existing or there are assurances that it will be in place prior to occupancy, the environmental noise analysis for the site may reflect the benefits afforded by the berm and/or barrier. In the environmental review process under §51.104(b), the location height and design of the berm and/or barrier shall be evaluated to determine its effectiveness, and impact on design and aesthetic quality, circulation and other environmental factors.

[44 FR 40861, July 12, 1979, as amended at 61 FR 13334, Mar. 26, 1996]

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Appendix I to Subpart B of Part 51—Definition of Acoustical Quantities

1. *Sound Level.* The quantity in decibels measured with an instrument satisfying requirements of American National Standard Specification for Type 1 Sound Level Meters S1.4-1971. Fast time-averaging and A-frequency weighting are to be used, unless others are specified. The sound level meter with the A-weighting is progressively less sensitive to sounds of frequency below 1,000 hertz (cycles per second), somewhat as is the ear. With fast time averaging the sound level meter responds particularly to recent sounds almost as quickly as does the ear in judging the loudness of a sound.

2. *Average Sound Level.* Average sound level, in decibels, is the level of the mean-square A-weighted sound pressure during the stated time period, with reference to the square of the standard reference sound pressure of 20 micropascals.

Day-night average sound level, abbreviated as DNL, and symbolized mathematically as L_{dn} is defined as:

$$L_{dn} = 10 \log_{10} \left[\frac{1}{86400} \left(\int_{0000}^{2359} 10^{[L_A(t)+10]/10} dt + \int_{0000}^{2359} 10^{L_A(t)/10} dt + \int_{2359}^{2400} 10^{[L_A(t)+10]/10} dt \right) \right]$$

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Time t is in seconds, so the limits shown in hours and minutes are actually interpreted in seconds. $L_A(t)$ is the time varying value of A-weighted sound level, the quantity in decibels measured by an instrument satisfying requirements of American National Standard Specification for Type 1 Sound Level Meters S1.4-1971.

3. *Loud Impulsive Sounds.* When loud impulsive sounds such as sonic booms or explosions are anticipated contributors to the noise environment at a site, the contribution to day-night average sound level produced by the loud impulsive sounds shall have 8 decibels added to it in assessing the acceptability of a site.

A loud impulsive sound is defined for the purpose of this regulation as one for which:

(i) The sound is definable as a discrete event wherein the sound level increases to a maximum and then decreases in a total time interval of approximately one second or less to the ambient background level that exists without the sound; and

(ii) The maximum sound level (obtained with slow averaging time and A-weighting of a Type 1 sound level meter whose characteristics comply with ANSI S1.4-1971) exceeds the sound level prior to the onset of the event by at least 6 decibels; and

(iii) The maximum sound level obtained with fast averaging time of a sound level meter exceeds the maximum value obtained with slow averaging time by at least 4 decibels.

[44 FR 40861, July 12, 1979; 49 FR 10253, Mar. 20, 1984; 49 FR 12214, Mar. 29, 1984]

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Subpart C—Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature

AUTHORITY: 42 U.S.C. 3535(d).

SOURCE: 49 FR 5103, Feb. 10, 1984, unless otherwise noted.

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§51.200 Purpose.

The purpose of this subpart C is to:

(a) Establish safety standards which can be used as a basis for calculating acceptable separation distances (ASD) for HUD-assisted projects from specific, stationary, hazardous operations which store, handle, or process hazardous substances;

(b) Alert those responsible for the siting of HUD-assisted projects to the inherent potential dangers when such projects are located in the vicinity of such hazardous operations;

(c) Provide guidance for identifying those hazardous operations which are most prevalent;

(d) Provide the technical guidance required to evaluate the degree of danger anticipated from explosion and thermal radiation (fire); and

(e) Provide technical guidance required to determine acceptable separation distances from such hazards.

[49 FR 5103, Feb. 10, 1984, as amended at 61 FR 13334, Mar. 26, 1996]

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§51.201 Definitions.

The terms *Department* and *Secretary* are defined in 24 CFR part 5.

Acceptable separation distance (ASD)—means the distance beyond which the explosion or combustion of a hazard is not likely to cause structures or individuals to be subjected to blast overpressure or thermal radiation flux levels in excess of the safety standards in §51.203. The ASD is determined by applying the safety standards established by this subpart C to the guidance set forth in HUD Guidebook, “Siting of HUD-Assisted Projects Near Hazardous Facilities.”

Blast overpressure—means the pressure, in pounds per square inch, in excess of normal atmospheric pressure on the surrounding medium caused by an explosion.

Danger zone—means the land area circumscribed by the radius which delineates the ASD of a given hazard.

Hazard—means any stationary container which stores, handles or processes hazardous substances of an explosive or fire prone nature. The term “hazard” does not include pipelines for the transmission of hazardous substances, if such pipelines are located underground or comply with applicable Federal, State and local safety standards. Also excepted are: (1) Containers with a capacity of 100 gallons or less when they contain common liquid industrial fuels, such as gasoline, fuel oil, kerosene and crude oil since they generally would pose no danger in terms of thermal radiation of blast overpressure to a project; and (2) facilities which are shielded from a proposed HUD-assisted project by the topography, because these topographic features effectively provide a mitigating measure already in place.

Hazardous substances—means petroleum products (petrochemicals) and chemicals that can produce blast overpressure or thermal radiation levels in excess of the standards set forth in §51.203. A specific list of hazardous substance is found in appendix I to this subpart.

HUD-assisted project—the development, construction, rehabilitation, modernization or conversion with HUD subsidy, grant assistance, loan, loan guarantee, or mortgage insurance, of any project which is intended for residential, institutional, recreational, commercial or industrial use. For purposes of this subpart the terms “rehabilitation” and “modernization” refer only to such repairs and renovation of a building or buildings as will result in an increased number of people being exposed to hazardous operations by increasing residential densities, converting the type of use of a building to habitation, or making a vacant building habitable.

Thermal radiation level—means the emission and propagation of heat energy through space or a material medium, expressed in BTU per square foot per hour (BTU/ft.² hr.).

[49 FR 5103, Feb. 10, 1984, as amended at 61 FR 5204, Feb. 9, 1996; 61 FR 13334, Mar. 26, 1996]

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§51.202 Approval of HUD-assisted projects.

(a) The Department will not approve an application for assistance for a proposed project located at less than the acceptable separation distance from a hazard, as defined in §51.201, unless appropriate mitigating measures, as defined in §51.205, are implemented, or unless mitigating measures are already in place.

(b) In the case of all applications for proposed HUD-assisted projects, the Department shall evaluate projected development plans in the vicinity of these projects to determine whether there are plans to install a hazardous operation in close proximity to the proposed project. If the evaluation shows that such a plan exists, the Department shall not approve assistance for the project unless the Department obtains satisfactory assurances that adequate mitigating measures will be taken when the hazardous operation is installed.

[49 FR 5103, Feb. 10, 1984, as amended at 61 FR 13334, Mar. 26, 1996]

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§51.203 Safety standards.

The following standards shall be used in determining the acceptable separation distance of a proposed HUD-assisted project from a hazard:

(a) *Thermal Radiation Safety Standard.* Projects shall be located so that:

(1) The allowable thermal radiation flux level at the building shall not exceed 10,000 BTU/sq. ft. per hr.;

(2) The allowable thermal radiation flux level for outdoor, unprotected facilities or areas of congregation shall not exceed 450 BTU/sq. ft. per hour.

(b) *Blast Overpressure Safety Standard.* Projects shall be located so that the maximum allowable blast overpressure at both buildings and outdoor, unprotected facilities or areas shall not exceed 0.5 psi.

(c) If a hazardous substance constitutes both a thermal radiation and blast overpressure hazard, the ASD for each hazard shall be calculated, and the larger of the two ASDs shall be used to determine compliance with this subpart.

(d) Background information on the standards and the logarithmic thermal radiation and blast overpressure charts that provide assistance in determining acceptable separation distances are contained in appendix II to this subpart C.

[49 FR 5103, Feb. 10, 1984, as amended at 61 FR 13334, Mar. 26, 1996]

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§51.204 HUD-assisted hazardous facilities.

In reviewing applications for proposed HUD-assisted projects involving the installation of hazardous facilities, the Department shall ensure that such hazardous facilities are located at an acceptable separation distance from residences and from any other facility or area where people may congregate or be present. The mitigating measures listed in §51.205 may be taken into account in determining compliance with this section.

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§51.205 Mitigating measures.

Application of the standards for determining an Acceptable Separation Distance (ASD) for a HUD-assisted project from a potential hazard of an explosion or fire prone nature is predicated on level topography with no intervening object(s) between the hazard and the project. Application of the standards can be eliminated or modified if:

(a) The nature of the topography shields the proposed project from the hazard.

(b) An existing permanent fire resistant structure of adequate size and strength will shield the proposed project from the hazard.

(c) A barrier is constructed surrounding the hazard, at the site of the project, or in between the potential hazard and the proposed project.

(d) The structure and outdoor areas used by people are designed to withstand blast overpressure and thermal radiation anticipated from the potential hazard (e.g., the project is of masonry and steel or reinforced concrete and steel construction).

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§51.206 Implementation.

This subpart C shall be implemented for each proposed HUD-assisted project by the HUD approving official or responsible entity responsible for review of the project. The implementation procedure will be part of the environmental review process in accordance with the procedures set forth in 24 CFR parts 50 and 58.

[61 FR 13334, Mar. 26, 1996]

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§51.207 Special circumstances.

The Secretary or the Secretary's designee may, on a case-by-case basis, when circumstances warrant, require the application of this subpart C with respect to a substance not listed in appendix I to this subpart C that would create thermal or overpressure effect in excess of that listed in §51.203.

[61 FR 13334, Mar. 26, 1996]

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§51.208 Reservation of administrative and legal rights.

Publication of these standards does not constitute a waiver of any right: (a) Of HUD to disapprove a project proposal if the siting is too close to a potential hazard not covered by this subpart, and (b) of HUD or any person or other entity to seek to abate or to collect damages occasioned by a nuisance, whether or not covered by the subpart.

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Appendix I to Subpart C of Part 51—Specific Hazardous Substances

The following is a list of specific petroleum products and chemicals defined to be hazardous substances under §51.201.

HAZARDOUS LIQUIDS

Acetic Acid	Ethyl Benzene
Acetic Anhydride	Ethyl Dichloride
Acetone	Ethyl Ether
Acrylonitrile	Gasoline
Amyl Acetate	Heptane
Amyl Alcohol	Hexane
Benzene	Isobutyl Acetate
Butyl Acetate	Isobutyl Alcohol
Butyl Acrylate	Isopropyl Acetate
Butyl Alcohol	Isopropyl Alcohol
Carbon Bisulfide	Jet Fuel and Kerosene
Carbon Disulfide	Methyl Alcohol
Cellosolve	Methyl Amyl Alcohol
Cresols	Methyl Cellosolve
Crude Oil (Petroleum)	Methyl Ethyl Ketone
Cumene	Naptha
Cyclohexane	Pentane
No. 2 Diesel Fuel	Propylene Oxide
Ethyl Acetate	Toluene
Ethyl Acrylate	Vinyl Acetate
Ethyl Alcohol	Xylene

HAZARDOUS GASES

Acetaldehyde	Hydrogen
--------------	----------

Butadiene	Liquefied Natural Gas (LNG)
Butane	Liquefied Petroleum Gas (LPG)
Ethene	Propane
Ethylene	Propylene
Ethylene Oxide	Vinyl Chloride

(Primary Source: "Urban Development Siting with respect to Hazardous Commercial/Industrial Facilities," by Rolf Jensen and Associates, Inc., April 1982)

[49 FR 5105, Feb. 10, 1984; 49 FR 12214, Mar. 29, 1984]

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Appendix II to Subpart C of Part 51—Development of Standards; Calculation Methods

I. Background Information Concerning the Standards

(a) Thermal Radiation:

(1) *Introduction.* Flammable products stored in above ground containers represent a definite, potential threat to human life and structures in the event of fire. The resulting fireball emits thermal radiation which is absorbed by the surroundings. Combustible structures, such as wooden houses, may be ignited by the thermal radiation being emitted. The radiation can cause severe burn, injuries and even death to exposed persons some distance away from the site of the fire.

(2) *Criteria for Acceptable Separation Distance (ASD).* Wooden buildings, window drapes and trees generally ignite spontaneously when exposed for a relatively long period of time to thermal radiation levels of approximately 10,000 Btu/hr. sq. ft. It will take 15 to 20 minutes for a building to ignite at that degree of thermal intensity. Since the reasonable response time for fire fighting units in urbanized areas is approximately five to ten minutes, a standard of 10,000 BTU/hr. sq. ft. is considered an acceptable level of thermal radiation for buildings.

People in outdoor areas exposed to a thermal radiation flux level of approximately 1,500 Btu/ft² hr will suffer intolerable pain after 15 seconds. Longer exposure causes blistering, permanent skin damage, and even death. Since it is assumed that children and the elderly could not take refuge behind walls or run away from the thermal effect of the fire within the 15 seconds before skin blistering occurs, unprotected (outdoor) areas, such as playgrounds, parks, yards, school grounds, etc., must be placed at such a distance from potential fire locations so that the radiation flux level is well below 1500 Btu/ft² hr. An acceptable flux level, particularly for elderly people and children, is 450 Btu/ft² hr. The skin can be exposed to this degree of thermal radiation for 3 minutes or longer with no serious detrimental effect. The result would be the same as a bad sunburn. Therefore, the standard for areas in which there will be exposed people, e.g. outdoor recreation areas such as playgrounds and parks, is set at 450 Btu/hr. sq. ft. Areas covered also include open space ancillary to residential structures, such as yard areas and vehicle parking areas.

(3) *Acceptable Separation Distance From a Potential Fire Hazard.* This is the actual setback required for the safety of occupied buildings and their inhabitants, and people in open spaces (exposed areas) from a potential fire hazard. The specific distance required for safety from such a hazard depends upon the nature and the volume of the substance. The Technical Guidebook entitled "Urban Development Siting With Respect to Hazardous/Commercial Industrial Facilities," which supplements this regulation, contains the technical guidance required to compute Acceptable Separation Distances (ASD) for those flammable substances most often encountered.

(b) *Blast Overpressure:* The Acceptable Separation Distance (ASD) for people and structures from materials prone to explosion is dependent upon the resultant blast measured in pounds per square inch (psi) overpressure. It has been determined by the military and corroborated by two independent studies conducted for the Department of Housing and Urban Development that 0.5 psi is the acceptable level of blast overpressure for both buildings and occupants, because a frame structure can normally withstand that level of external exertion with no serious structural damage, and it is

unlikely that human beings inside the building would normally suffer any serious injury. Using this as the safety standard for blast overpressure, nomographs have been developed from which an ASD can be determined for a given quantity of hazardous substance. These nomographs are contained in the handbook with detailed instructions on their use.

(c) *Hazard evaluation:* The Acceptable Separation Distances for buildings, which are determined for thermal radiation and blast overpressure, delineate separate identifiable danger zones for each potential accident source. For some materials the fire danger zone will have the greatest radius and cover the largest area, while for others the explosion danger zone will be the greatest. For example, conventional petroleum fuel products stored in unpressurized tanks do not emit blast overpressure of dangerous levels when ignited. In most cases, hazardous substances will be stored in pressurized containers. The resulting blast overpressure will be experienced at a greater distance than the resulting thermal radiation for the standards set in Section 51.203. In any event the hazard requiring the greatest separation distance will prevail in determining the location of HUD-assisted projects.

The standards developed for the protection of people and property are given in the following table.

	Thermal radiation	Blast overpressure
Amount of acceptable exposure allowed for building structures	10,000 BTU/ft ² hr	0.5 psi.
Amount of acceptable exposure allowed for people in open areas	450 BTU/ft ² hr	0.5 psi.

Problem Example

The following example is given as a guide to assist in understanding how the procedures are used to determine an acceptable separation distance. The technical data are found in the HUD Guidebook. Liquid propane is used in the example since it is both an explosion and a fire hazard.

In this hypothetical case a proposed housing project is to be located 850 feet from a 30,000 gallon liquid propane (LPG) tank. The objective is to determine the acceptable separation distance from the LPG tank. Since propane is both explosive and fire prone it will be necessary to determine the ASD for both explosion and for fire. The greatest of the two will govern. There is no dike around the tank in this example.

Nomographs from the technical Guidebook have been reproduced to facilitate the solving of the problem.

ASD For Explosion

Use Figure 1 to determine the acceptable separation distance for explosion.

The graph depicted on Figure 1 is predicated on a blast overpressure of 0.5 psi.

The ASD in feet can be determined by applying the quantity of the hazard (in gallons) to the graph.

In this case locate the 30,000 gallon point on the horizontal axis and draw a vertical line from that point to the intersection with the straight line curve. Then draw a horizontal line from the point where the lines cross to the left vertical axis where the ACCEPTABLE SEPARATION DISTANCE of 660 feet is found.

Therefore the ASD for explosion is 660 feet

Since the proposed project site is located 850 feet from the tank it is located at a safe distance with regards to blast overpressure.

ACCEPTABLE SEPARATION DISTANCE
BLAST OVERPRESSURE
NO BLAST HAZARD
HAZARDOUS GAS CLOUDING

30

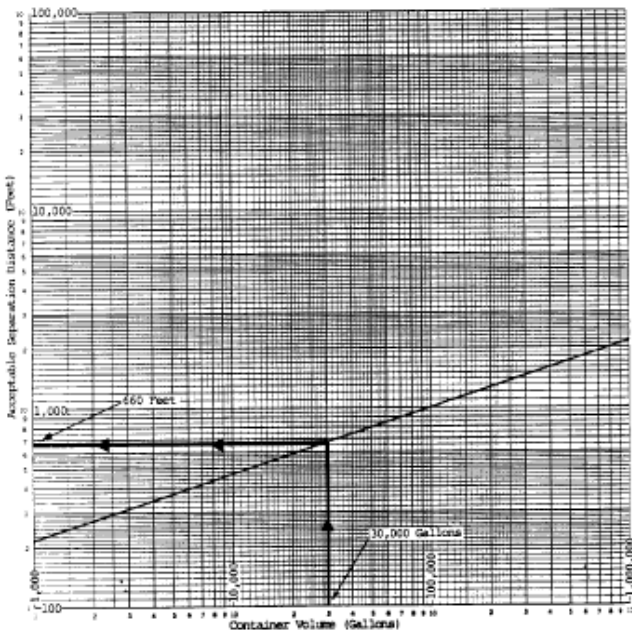


Figure 3

[View or download PDF](#)

ASD For Fire

To determine the ASD for fire it will be necessary to first find the fire width (diameter of the fireball) on Figure 2. Then apply this to Figure 3 to determine the ASD.

Since there are two safety standards for fire: (a) 10,000 BTU/ft²hr. for buildings; and (b) 450 BTU/ft²hr. for people in exposed areas, it will be necessary to determine an ASD for each.

To determine the fire width locate the 30,000 gallon point on the horizontal axis on *Figure 2* and draw a vertical line to the straight line curve. Then draw a horizontal line from the point where the lines cross to the left vertical axis where the FIRE WIDTH is found to be *350 feet*.

Now locate the 350 ft. point on the horizontal axis of *Figure 3* and draw a vertical line from that point to curves 1 and 2. Then draw horizontal lines from the points where the lines cross to the left vertical axis where the ACCEPTABLE SEPARATION DISTANCES of *240 feet* for buildings and *1,150 feet* for exposure to people is found.

Based on this the proposed project site is located at a safe distance from a potential fireball. However, exposed playgrounds or other exposed areas of congregation must be at least 1,150 feet from the tank, or be appropriately shielded from a potential fireball.

(Source: HUD Handbook, "Urban Development Siting With Respect to Hazardous Commercial/Industrial Facilities.")

FIRE WIDTH - UNCONTAINED SPILL
HAZARDOUS GAS CONTAINERS
NET WEIGHT

32

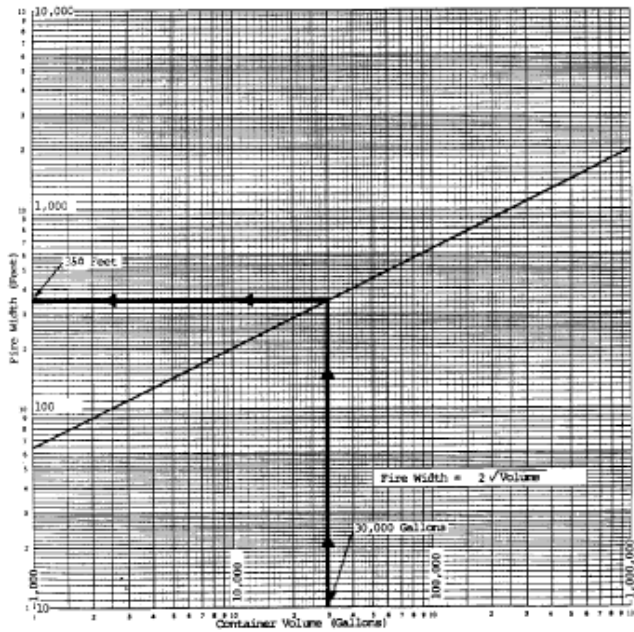


Figure 2

[View or download PDF](#)

ACCEPTABLE SEPARATION DISTANCE
HAZARDOUS GAS CONTAINERS
UNCONTAINED

33

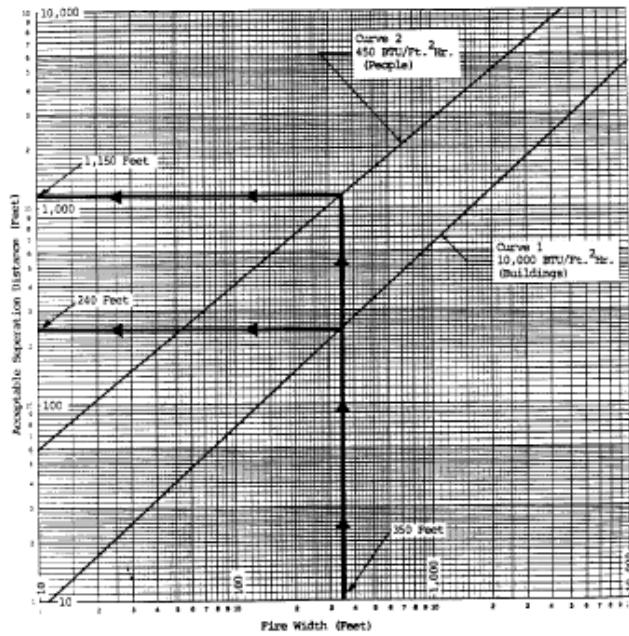


Figure 3

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[49 FR 5105, Feb. 10, 1984; 49 FR 12214, Mar. 29, 1984]

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Subpart D—Siting of HUD Assisted Projects in Runway Clear Zones at Civil Airports and Clear Zones and Accident Potential Zones at Military Airfields

AUTHORITY: Sec. 2, Housing Act of 1949, as amended, 42 U.S.C. 1441, affirmed by sec. 2, HUD Act of 1969, Pub. L. 90-448; sec. 7(d), HUD Act of 1965, 42 U.S.C. 3535(d); OMB, Fed'l Mgmt. Cir. 75-2: Compatible Land Uses At Federal Airfields.

SOURCE: 49 FR 880, Jan. 6, 1984, unless otherwise noted.

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§51.300 Purpose.

It is the purpose of this subpart to promote compatible land uses around civil airports and military airfields by identifying suitable land uses for Runway Clear Zones at civil airports and Clear Zones and Accident Potential Zones at military airfields and by establishing them as standards for providing HUD assistance, subsidy or insurance.

[49 FR 880, Jan. 6, 1984, as amended at 61 FR 13334, Mar. 26, 1996]

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§51.301 Definitions.

For the purposes of this regulation, the following definitions apply:

(a) *Accident Potential Zone*. An area at military airfields which is beyond the Clear Zone. The standards for the Accident Potential Zones are set out in Department of Defense Instruction 4165.57, "Air Installations Compatible Use Zones," November 8, 1977, 32 CFR part 256. There are no Accident Potential Zones at civil airports.

(b) *Airport Operator*. The civilian or military agency, group or individual which exercises control over the operations of the civil airport or military airfield.

(c) *Civil Airport*. An existing commercial service airport as designated in the National Plan of Integrated Airport Systems prepared by the Federal Aviation Administration in accordance with section 504 of the Airport and Airway Improvement Act of 1982.

(d) *Runway Clear Zones and Clear Zones*. Areas immediately beyond the ends of a runway. The standards for Runway Clear Zones for civil airports are established by FAA regulation 14 CFR part 152. The standards for Clear Zones for military airfields are established by DOD Instruction 4165.57, 32 CFR part 256.

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§51.302 Coverage.

(a) These policies apply to HUD programs which provide assistance, subsidy or insurance for construction, land development, community development or redevelopment or any other provision of facilities and services which are designed to make land available for construction. When the HUD assistance, subsidy or insurance is used to make land available for construction rather than for the actual construction, the provision of the HUD assistance, subsidy or insurance shall be dependent upon whether the facility to be built is itself acceptable in accordance with the standards in §51.303.

(b) These policies apply not only to new construction but also to substantial or major modernization and rehabilitation and to any other program which significantly prolongs the physical or economic life of existing facilities or which, in the case of Accident Potential Zones:

(1) Changes the use of the facility so that it becomes one which is no longer acceptable in accordance with the standards contained in §51.303(b);

(2) Significantly increases the density or number of people at the site; or

(3) Introduces explosive, flammable or toxic materials to the area.

(c) Except as noted in §51.303(a)(3), these policies do not apply to HUD programs where the action only involves the purchase, sale or rental of an existing property without significantly prolonging the physical or economic life of the property.

(d) The policies do not apply to research or demonstration projects which do not result in new construction or reconstruction, to interstate land sales registration, or to any action or emergency assistance which is provided to save lives, protect property, protect public health and safety, or remove debris and wreckage.

[49 FR 880, Jan. 6, 1984, as amended at 61 FR 13334, Mar. 26, 1996]

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§51.303 General policy.

It is HUD's general policy to apply standards to prevent incompatible development around civil airports and military airfields.

(a) HUD policy for actions in Runway Clear Zones and Clear Zones.

(1) HUD policy is not to provide any assistance, subsidy or insurance for projects and actions covered by this part except as stated in §51.303(a)(2) below.

(2) If a project proposed for HUD assistance, subsidy or insurance is one which will not be frequently used or occupied by people, HUD policy is to provide assistance, subsidy or insurance only when written assurances are provided to HUD by the airport operator to the effect that there are no plans to purchase the land involved with such facilities as part of a Runway Clear Zone or Clear Zone acquisition program.

(3) Special notification requirements for Runway Clear Zones and Clear Zones. In all cases involving HUD assistance, subsidy, or insurance for the purchase or sale of an existing property in a Runway Clear Zone or Clear Zone, HUD (or the responsible entity or recipient under 24 CFR part 58) shall advise the buyer that the property is in a Runway Clear Zone or Clear Zone, what the implications of such a location are, and that there is a possibility that the property may, at a later date, be acquired by the airport operator. The buyer must sign a statement acknowledging receipt of this information.

(b) HUD policy for actions in Accident Potential Zones at Military Airfields. HUD policy is to discourage the provision of any assistance, subsidy or insurance for projects and actions in the Accident Potential Zones. To be approved, projects must be generally consistent with the recommendations in the *Land Use Compatibility Guidelines For Accident Potential Zones* chart contained in DOD Instruction 4165.57, 32 CFR part 256.

[49 FR 880, Jan. 6, 1984, as amended at 61 FR 13334, Mar. 26, 1996]

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§51.304 Responsibilities.

(a) The following persons have the authority to approve actions in Accident Potential Zones:

(1) For programs subject to environmental review under 24 CFR part 58: the Certifying Officer of the responsible entity as defined in 24 CFR part 58.

(2) For all other HUD programs: the HUD approving official having approval authority for the project.

(b) The following persons have the authority to approve actions in Runway Clear Zones and Clear Zones:

(1) For programs subject to environmental review under 24 CFR part 58: The Certifying Officer of the responsible entity as defined in 24 CFR part 58.

(2) For all other HUD programs: the Program Assistant Secretary.

[61 FR 13335, Mar. 26, 1996]

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§51.305 Implementation.

(a) Projects already approved for assistance. This regulation does not apply to any project approved for assistance prior to the effective date of the regulation whether the project was actually under construction at that date or not.

(b) Acceptable data on Runway Clear Zones, Clear Zones and Accident Potential Zones. The only Runway Clear Zones, Clear Zones and Accident Potential Zones which will be recognized in applying this part are those provided by the airport operators and which for civil airports are defined in accordance with FAA regulations 14 CFR part 152 or for military airfields, DOD Instruction 4165.57, 32 CFR part 256. All data, including changes, related to the dimensions of Runway Clear Zones for civil airports shall be verified with the nearest FAA Airports District Office before use by HUD.

(c) Changes in Runway Clear Zones, Clear Zones, and Accident Potential Zones. If changes in the Runway Clear Zones, Clear Zones or Accident Potential Zones are made, the field offices shall immediately adopt these revised zones for use in reviewing proposed projects.

(d) The decision to approve projects in the Runway Clear Zones, Clear Zones and Accident Potential Zones must be documented as part of the environmental assessment or, when no assessment is required, as part of the project file.

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APPENDIX 2: EQUIPMENT DATA CALIBRATION



TRANSCAT® CERTIFICATE OF CALIBRATION

Trust in every measure

Customer: RAECO RENTS LLC
 135 BERNICE DRIVE
 BENSENVILLE, IL 60106

PO Number: 3508-1

Certificate/SO Number: 17-C117X-40-1 Revision 0

Manufacturer: 3M Company
 Model Number: AC-300
 Description: Sound Level Calibrator
 Serial Number: AC300004643
 ID: NONE

As-Found: In Tolerance
 As-Left: In Tolerance

Calibration Date: Mar 04, 2019
 Due Date: Mar 04, 2020

Calibrated To: Manufacturer Specification
 Calibration Procedure: 1-AC62139-1

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2005. Accredited calibrations performed within the Lab's Scope of Accreditation are indicated by the presence of the Accrediting Body's Logo and Certificate Number. Any measurements on an accredited calibration not covered by that Lab's Scope of Accreditation are listed in the notes section of the certificate. SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual QAC-P01-000 Revision 2.0, the customer's Purchase Order and/or Quality Agreement requirements, ISO 9001:2008, ANSVNCSL Z540.1-1994 (R2002) or NQA-1, as applicable. Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are listed on this certificate.

Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST), or the National Research Council of Canada (NRC), or other national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review upon written request at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

A binary decision rule, utilizing simple acceptance, and simple rejection criteria is used for the determination of compliance. When compliance statements are present, they are reported without factoring in the effects of uncertainty and comply with the guidelines established by ASME B89.7.3.1-2001 (R2011) as follows:
 -The acceptance zone is defined as: less than or equal to the high limit, and/or greater than or equal to the low limit. The rejection zones are defined as greater than the high limit and/or less than the low limit.
 -Single measurement results in the acceptance zone are identified as in-tolerance. Single measurement results in the rejection zone are identified as out-of-tolerance (OOT).
 -When all measurement results are in the acceptance zone for repeated measurements, for the same characteristic, the test is identified as in-tolerance. For repeated characteristic measurements, a single measurement result in the rejection zone, will cause the test to be identified as out-of-tolerance (OOT).

Uncertainties are reported with a coverage factor k=2, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

The results in this report relate only to the item calibrated or tested. Recorded calibration data is valid at the time of calibration within the stated uncertainties at the environmental conditions noted. The determination of compliance to the specification is specific to the model/serial no./ID no. referenced above based on the tolerances shown; these tolerances are either the original equipment manufacturers (OEM's) warranted specifications or the client's requested specifications. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	O O T	TUR
Source Level							
1000Hz	114.0dB	±(0.4 dB)	113.6	114.4	114.0 dB		1.1 : 1
250Hz	114.0dB	±(0.4 dB)	113.6	114.4	114.0 dB		1.1 : 1

TRANSCAT® CERTIFICATE OF CALIBRATION

Trust in every measure

Customer: RAECO RENTS LLC
 135 BERNICE DRIVE
 BENSENVILLE, IL 60106

PO Number: 3508-1

Certificate/SO Number: 17-C117X-40-1 Revision 0

Traceable Standards

Asset	Manufacturer	Model Number	Description	Cal Date	Due Date	Traceability Number	Use
13414	General Radio	1986	Sound Level Calibrator	21-Feb-19	31-Aug-19	CAS-360164-Q9C1C 8-701	AF/AL
18985	Simpson Electric Company	886-2	Sound Level Meter	1-Mar-19	31-Mar-20	17-&18985-721-1	AF/AL
O10251	Agilent	53132A	Frequency Counter, 2 Channel	26-Jul-18	31-Jul-19	17-&O10251-21-1	AF/AL
O10277	Exttech Instrument Corporation	407732	Sound Level Meter, Type-2	2-Aug-18	31-Aug-19	17-&O10277-11-1	AF/AL

The use of the standard is defined as: AF - used for as-found readings, AL - used for as-left readings.

Environmental Data

Temperature	Relative Humidity	Temp/ RH Asset
67.48°F /19.71°C	43.60%	O10253-1

Calibrated At:
 8334B Arrow Ridge Blvd.
 Charlotte, NC 28273

Facility Responsible:
 8334B Arrow Ridge Blvd.
 Charlotte, NC 28273
 800-828-1470

Calibrated By:
 Electronically Signed By:

 Tracy Dye

Tracy Dye Mar 04, 2019
 Calibration Technician 11:19:23 -05:00

Reviewed By:
 Electronically Signed By:

 Adam McCrea

Adam McCrea Mar 04, 2019
 Lab Manager 12:02:22 -05:00

Unit Barcode: 
 900B0167009

Date Received: February 08, 2019
 Service Level : R3

TRANSCAT® CERTIFICATE OF CALIBRATION

Trust in every measure

Customer: RAECO RENTS LLC
135 BERNICE DRIVE
BENSENVILLE, IL 60106



PO Number: 3508-1

Certificate/SO Number: 17-C117X-20-1 Revision 0

Manufacturer: 3M Company
Model Number: SoundPro DL-1-1/3
Description: Sound Level Meter, Type-1
Serial Number: BLN120003
ID: NONE

As-Found: In Tolerance
As-Left: In Tolerance

Calibration Date: Mar 04, 2019
Due Date: Mar 04, 2020

Calibrated To: Manufacturer Specification
Calibration Procedure: 1-AC28066-1

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2005. Accredited calibrations performed within the Lab's Scope of Accreditation are indicated by the presence of the Accrediting Body's Logo and Certificate Number. Any measurements on an accredited calibration not covered by that Lab's Scope of Accreditation are listed in the notes section of the certificate. SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual QAC-P01-000 Revision 2.0, the customer's Purchase Order and/or Quality Agreement requirements, ISO 9001:2008, ANSI/NCSL Z540.1-1994 (R2002) or NQA-1, as applicable. Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are listed on this certificate.

Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST), or the National Research Council of Canada (NRC), or other national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review upon written request at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

A binary decision rule, utilizing simple acceptance, and simple rejection criteria is used for the determination of compliance. When compliance statements are present, they are reported without factoring in the effects of uncertainty and comply with the guidelines established by ASME B89.7.3.1-2001 (R2011) as follows:
-The acceptance zone is defined as: less than or equal to the high limit, and/or greater than or equal to the low limit. The rejection zones are defined as greater than the high limit and/or less than the low limit.
-Single measurement results in the acceptance zone are identified as in-tolerance. Single measurement results in the rejection zone are identified as out-of-tolerance (OOT).
-When all measurement results are in the acceptance zone for repeated measurements, for the same characteristic, the test is identified as in-tolerance. For repeated characteristic measurements, a single measurement result in the rejection zone, will cause the test to be identified as out-of-tolerance (OOT).

Uncertainties are reported with a coverage factor k=2, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

The results in this report relate only to the item calibrated or tested. Recorded calibration data is valid at the time of calibration within the stated uncertainties at the environmental conditions noted. The determination of compliance to the specification is specific to the model/serial no./ID no. referenced above based on the tolerances shown; these tolerances are either the original equipment manufacturers (OEM's) warranted specifications or the client's requested specifications. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	O O T	TUR
Source Level (A Weight)							
A Weight	114dB	±(1 dB)	96.9	98.9	97.4 dB		3.1 : 1
125Hz	114dB	±(1 dB)	104.4	106.4	104.8 dB		2.9 : 1
250Hz	114dB	±(1 dB)	109.8	111.8	110.3 dB		2.8 : 1
500Hz							

TRANSCAT® CERTIFICATE OF CALIBRATION

Trust in every measure

Customer: RAECO RENTS LLC
 135 BERNICE DRIVE
 BENSENVILLE, IL 60106



PO Number: 3508-1

Certificate/SO Number: 17-C117X-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	O Q T	TUR
Source Level (A Weight)							
	114dB	±(1 dB)	113.0	115.0	113.6 dB		2.7 : 1
1000Hz							
	114dB	±(1 dB)	114.2	116.2	114.7 dB		2.7 : 1
2000Hz							
	114dB	±(1 dB)	114.0	116.0	114.9 dB		1.6 : 1
4000Hz							
Sound Level (C Weight)							
C Weight	114dB	±(1 dB)	113.0	115.0	113.6 dB		2.7 : 1
125Hz							
	114dB	±(1 dB)	113.0	115.0	113.6 dB		2.7 : 1
250Hz							
	114dB	±(1 dB)	113.0	115.0	113.6 dB		2.7 : 1
500Hz							
	114dB	±(1 dB)	113.0	115.0	113.5 dB		2.7 : 1
1000Hz							
	114dB	±(1 dB)	113.0	115.0	113.7 dB		2.7 : 1
2000Hz							
	114dB	±(1 dB)	113.0	115.0	113.8 dB		1.6 : 1
4000Hz							
Sound Level Test							
Level Test	74dB	±(1 dB)	73.0	75.0	73.8 dB		2.2 : 1
1kHz							
	84dB	±(1 dB)	83.0	85.0	83.6 dB		2.2 : 1
1kHz							
	94dB	±(1 dB)	93.0	95.0	93.6 dB		2.2 : 1
1kHz							
	104dB	±(1 dB)	103.0	105.0	103.8 dB		2.2 : 1
1kHz							
	114dB	±(1 dB)	113.0	115.0	113.7 dB		2.7 : 1
1kHz							

TRANSCAT® CERTIFICATE OF CALIBRATION

Trust in every measure

Customer: RAECO RENTS LLC
 135 BERNICE DRIVE
 BENSENVILLE, IL 60106



PO Number: 3508-1

Certificate/SO Number: 17-C117X-20-1 Revision 0

Traceable Standards

Asset	Manufacturer	Model Number	Description	Cal Date	Due Date	Traceability Number	Use
13414	General Radio	1986	Sound Level Calibrator	21-Feb-19	31-Aug-19	CAS-360164-Q9C1C 8-701	AF/AL

The use of the standard is defined as: AF - used for as-found readings, AL - used for as-left readings.

Environmental Data

Temperature	Relative Humidity	Temp / RH Asset
67.48°F /19.71°C	43.60%	O10253-1

Calibrated At:
 8334B Arrow Ridge Blvd.
 Charlotte, NC 28273

Facility Responsible:
 8334B Arrow Ridge Blvd.
 Charlotte, NC 28273
 800-828-1470

Calibrated By:
 **Electronically Signed By:**
 Tracy Dye

Reviewed By:
 **Electronically Signed By:**
 Adam McCrea

Tracy Dye Mar 04, 2019
 Calibration Technician 11:36:08 -05:00

Adam McCrea Mar 04, 2019
 Lab Manager 12:02:34 -05:00

Unit Barcode: 
 900B0167008

Date Received: February 06, 2019
Service Level: R3



Certificate of Calibration

Certificate No: 770383 AC300001324

Submitted By: RAECO LIC LLC
135 BERNICE DR
BENSENVILLE, IL

Serial Number: AC300001324 Date Received: 1/17/2019
Customer ID: Date Issued: 1/21/2019
Model: AC-300 CALIBRATOR Valid Until: 1/21/2020

Test Conditions: Model Conditions:
Temperature: 18°C to 29°C As Found: IN TOLERANCE
Humidity: 20% to 80% As Left: IN TOLERANCE
Barometric Pressure: 890 mbar to 1050 mbar

SubAssemblies:
Description: Serial Number:

Calibrated per Procedure: 057V879

Reference Standard(s):
I.D. Number Device Last Calibration Date Calibration Due
ET0000556 B&K ENSEMBLE 6/23/2018 10/31/2019

Measurement Uncertainty:
+/- 1.1% ACOUSTIC (0.1DB) +/- 0.012% HZ
Estimated at 95% Confidence Level (k=2)

Calibrated By:  1/21/2019
BETHANY JOHNSON Service Technician

This report certifies that all calibration equipment used in the test is traceable to NIST, and applies only to the unit identified under equipment above. This report must not be reproduced except in its entirety without the written approval of 3M Detection Solutions.



Certificate of Calibration

Certificate No: 770383 BLL100004

Submitted By: RAECO LIC LLC
135 BERNICE DR
BENSENVILLE, IL

Serial Number: BLL100004 Date Received: 1/17/2019
Customer ID: Date Issued: 2/1/2019
Model: SOUNDPRO DL-1-1/3 SLM Valid Until: 2/1/2020

Test Conditions: Model Conditions:
Temperature: 18°C to 29°C As Found: OUT OF TOLERANCE
Humidity: 20% to 80% As Left: IN TOLERANCE
Barometric Pressure: 890 mbar to 1050 mbar

SubAssemblies:
Description: Serial Number:
MICROPHONE B&K 4936 1/2 IN. ELECTRET 2785636
TYPE 2 PREAMP 1116 1991

Calibrated per Procedure: 53V899

Reference Standard(s):

I.D. Number	Device	Last Calibration Date	Calibration Due
EF000105	QUEST-CAL	12/11/2018	12/11/2019
ET0000556	B&K ENSEMBLE	6/23/2018	10/31/2019

Measurement Uncertainty:
+/- 2.2% ACOUSTIC (0.19DB)
Estimated at 95% Confidence Level (k=2)

Calibrated By:  2/1/2019
BETHANY JOHNSON Service Technician

This report certifies that all calibration equipment used in the test is traceable to NIST, and applies only to the unit identified under equipment above. This report must not be reproduced except in its entirety without the written approval of 3M Detection Solutions.

APPENDIX 3: NOISE LEVEL MEASUREMENT AND GRAPHS



Session Report

6/12/2019

Information Panel

Company Name	"Proyecto Ensueño" - TFS Housing, LLC
Name	Monitoring Station 1 - Meter 1 - Daytime Period
Model Type	SoundPro DL
Serial Number	BLN120003
Device Firmware Rev	R.13H
Start Time	6/11/2019 8:18:58 PM
Stop Time	6/11/2019 8:54:55 PM
Run Time	00:35:57
Description	Located at north side of the property, near to "Camino Tauque"

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Leq	1	62.9 dB	CNEL	1	67.9 dB
Dose8	1	0.2 %	L10	1	64.9 dB
L90	1	59 dB	LDN	1	62.9 dB
Lmax	1	82.6 dB	Lmin	1	51.6 dB
Lpk	1	88.6 dB	ProjectedTWA (1.00:00)	1	67.6 dB
Rtime	1	00:35:57	TWA	1	51.6 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST			

Statistics Table

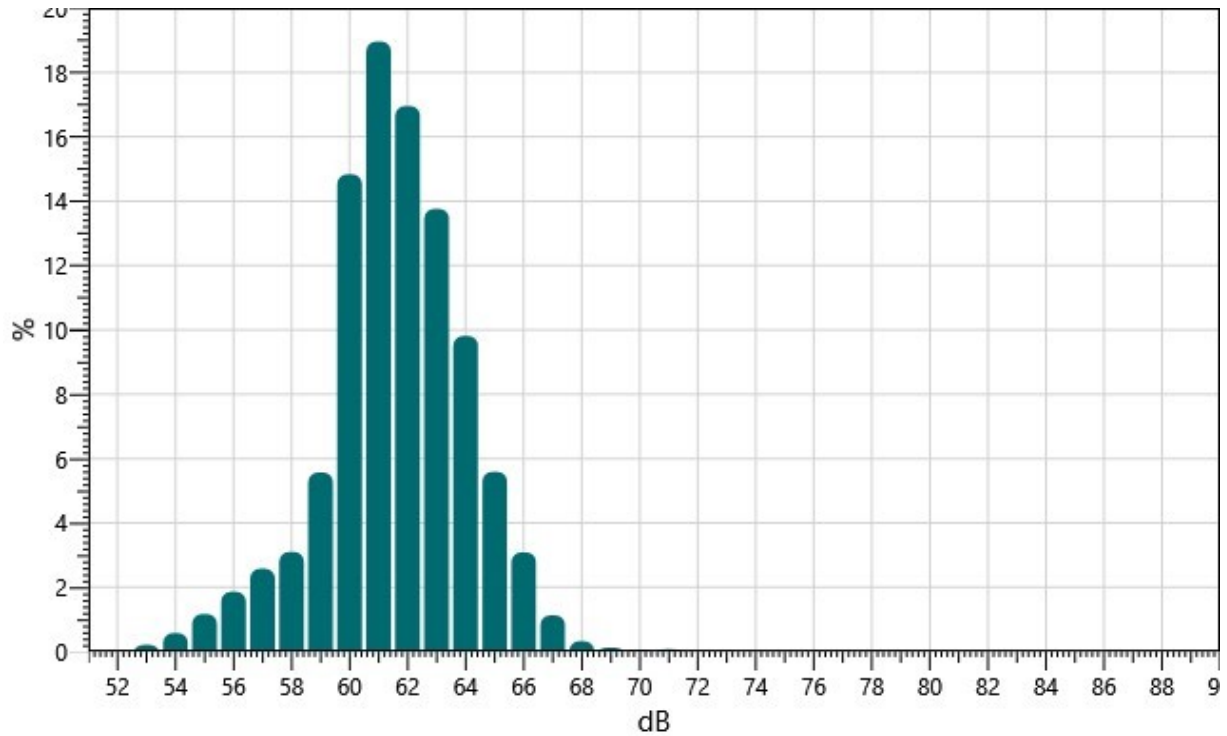
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
51:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.03
53:	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.03	0.03	0.21
54:	0.04	0.05	0.04	0.05	0.05	0.06	0.07	0.07	0.07	0.08	0.58
55:	0.09	0.11	0.11	0.13	0.05	0.11	0.11	0.14	0.15	0.16	1.17
56:	0.17	0.18	0.17	0.18	0.18	0.17	0.19	0.21	0.19	0.23	1.86
57:	0.25	0.23	0.23	0.26	0.22	0.25	0.27	0.27	0.29	0.31	2.58
58:	0.29	0.31	0.34	0.36	0.20	0.27	0.35	0.32	0.32	0.34	3.10
59:	0.39	0.37	0.39	0.46	0.52	0.55	0.56	0.66	0.75	0.92	5.57

60:	0.97	1.10	1.17	1.29	1.44	1.60	1.68	1.75	1.90	1.94	14.83
61:	1.97	2.03	2.11	2.16	1.40	1.41	2.01	1.96	1.96	1.94	18.96
62:	1.90	1.89	1.77	1.73	1.69	1.69	1.60	1.59	1.57	1.51	16.96
63:	1.53	1.43	1.39	1.39	1.41	1.30	1.39	1.30	1.27	1.35	13.76
64:	1.28	1.27	1.19	1.19	0.80	0.61	0.96	0.89	0.81	0.80	9.81
65:	0.74	0.70	0.64	0.58	0.56	0.53	0.52	0.45	0.46	0.40	5.59
66:	0.39	0.40	0.38	0.34	0.32	0.29	0.29	0.25	0.23	0.20	3.09
67:	0.20	0.15	0.15	0.13	0.11	0.06	0.10	0.09	0.07	0.07	1.13
68:	0.06	0.05	0.05	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.33
69:	0.01	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.13
70:	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.06
71:	0.01	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.08
72:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
73:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
74:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
75:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
76:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
77:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
78:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03
79:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
80:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
81:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Statistics Chart

Monitoring Station 1 - Meter 1 - Daytime Period: Statistics Chart



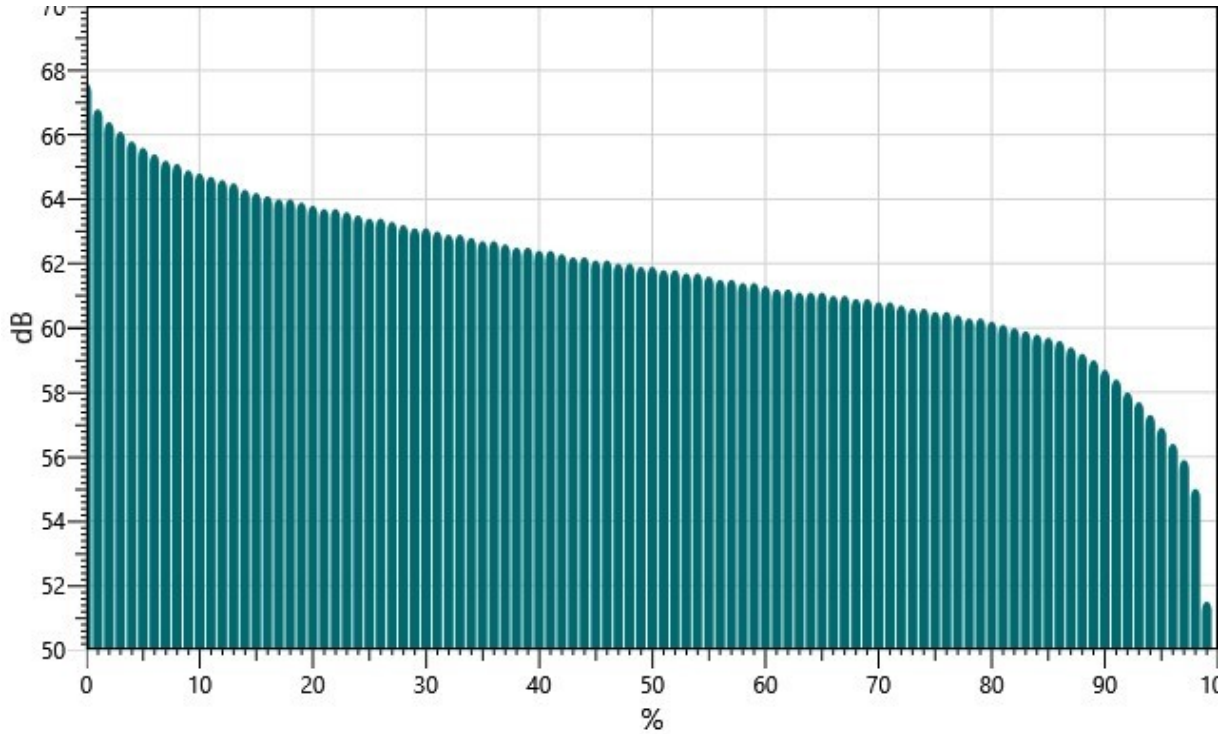
Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%:		67.6	66.8	66.4	66.1	65.8	65.6	65.4	65.2	65.1
10%:	64.9	64.8	64.7	64.6	64.5	64.3	64.2	64.1	64.0	64.0
20%:	63.9	63.8	63.7	63.7	63.6	63.5	63.4	63.4	63.3	63.2
30%:	63.1	63.1	63.0	62.9	62.9	62.8	62.7	62.7	62.6	62.5
40%:	62.5	62.4	62.4	62.3	62.2	62.2	62.1	62.1	62.0	62.0
50%:	61.9	61.9	61.8	61.8	61.7	61.7	61.6	61.5	61.5	61.4
60%:	61.4	61.3	61.2	61.2	61.1	61.1	61.1	61.0	61.0	60.9
70%:	60.9	60.8	60.8	60.7	60.6	60.6	60.5	60.5	60.4	60.3
80%:	60.3	60.2	60.1	60.0	59.9	59.8	59.7	59.6	59.4	59.2
90%:	59.0	58.7	58.4	58.0	57.7	57.3	56.9	56.4	55.9	55.0
100%:	51.5									



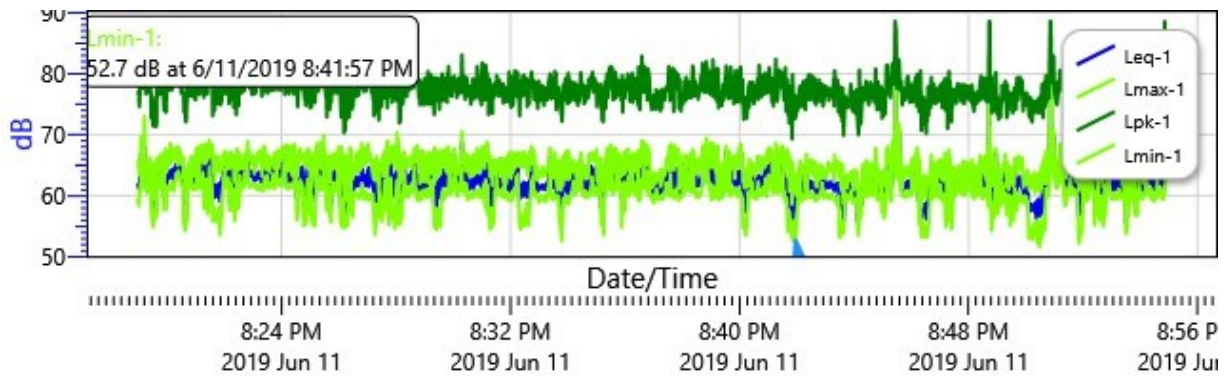
Exceedance Chart

Monitoring Station 1 - Meter 1 - Daytime Period: Exceedance Chart



Logged Data Chart

Monitoring Station 1 - Meter 1 - Daytime Period: Logged Data Chart



Session Report

6/12/2019

Information Panel

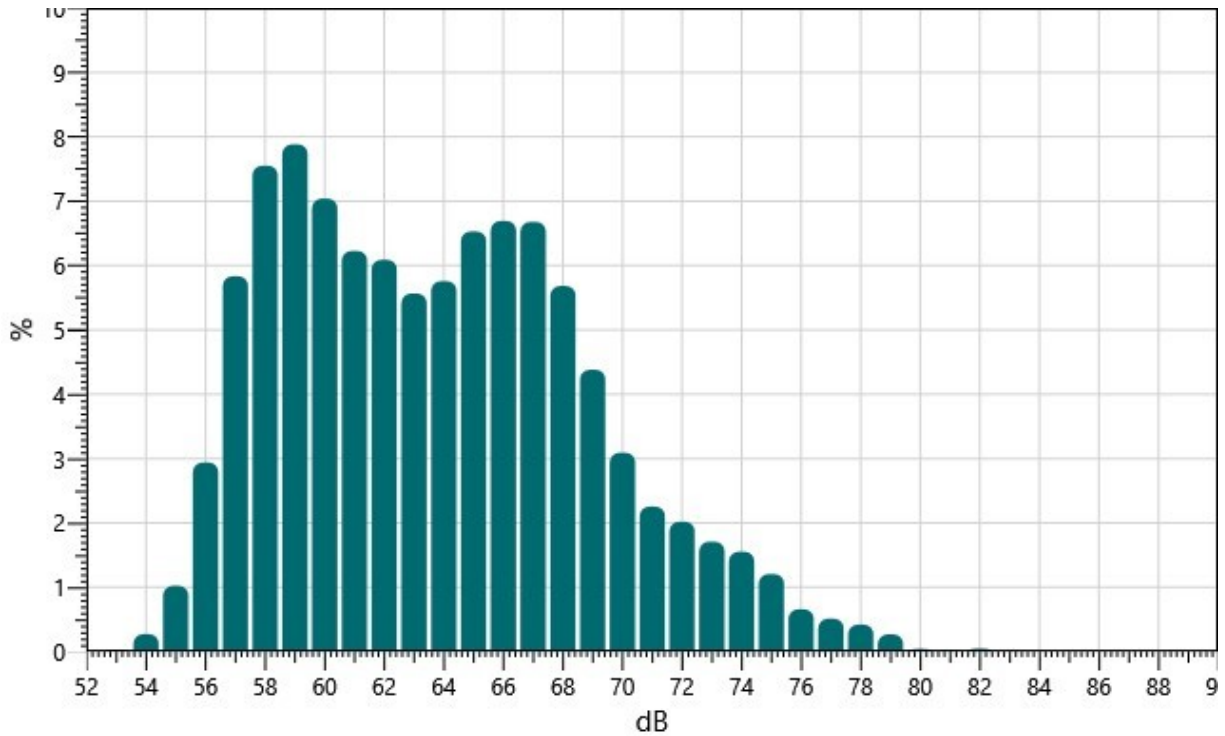
Company Name "Proyecto Ensueño" - TFS Housing, LLC
Name Monitoring Station 2 - Meter 2 - Day time Period
Model Type SoundPro DL
Serial Number BLL100004
Device Firmware Rev R.13H
Start Time 6/11/2019 8:18:24 PM
Stop Time 6/11/2019 8:54:30 PM
Run Time 00:36:06
Description Located at the northeast of the property, near to "Camino Tauque"

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose8	1	0.6 %	L10	1	71.1 dB
LDN	1	67.7 dB	Leq	1	67.7 dB
Lmax	1	84.2 dB	Lmin	1	52.8 dB
Lpk	1	89.6 dB	ProjectedTWA (1.00:00)	1	72.4 dB
Rtime	1	00:36:06	TWA	1	56.4 dB
Weighting	1	A	Response	1	FAST
Exchange Rate	1	3 dB			

Statistics Chart

Monitoring Station 2 - Meter 2 - Day time Period: Statistics Chart



Statistics Table

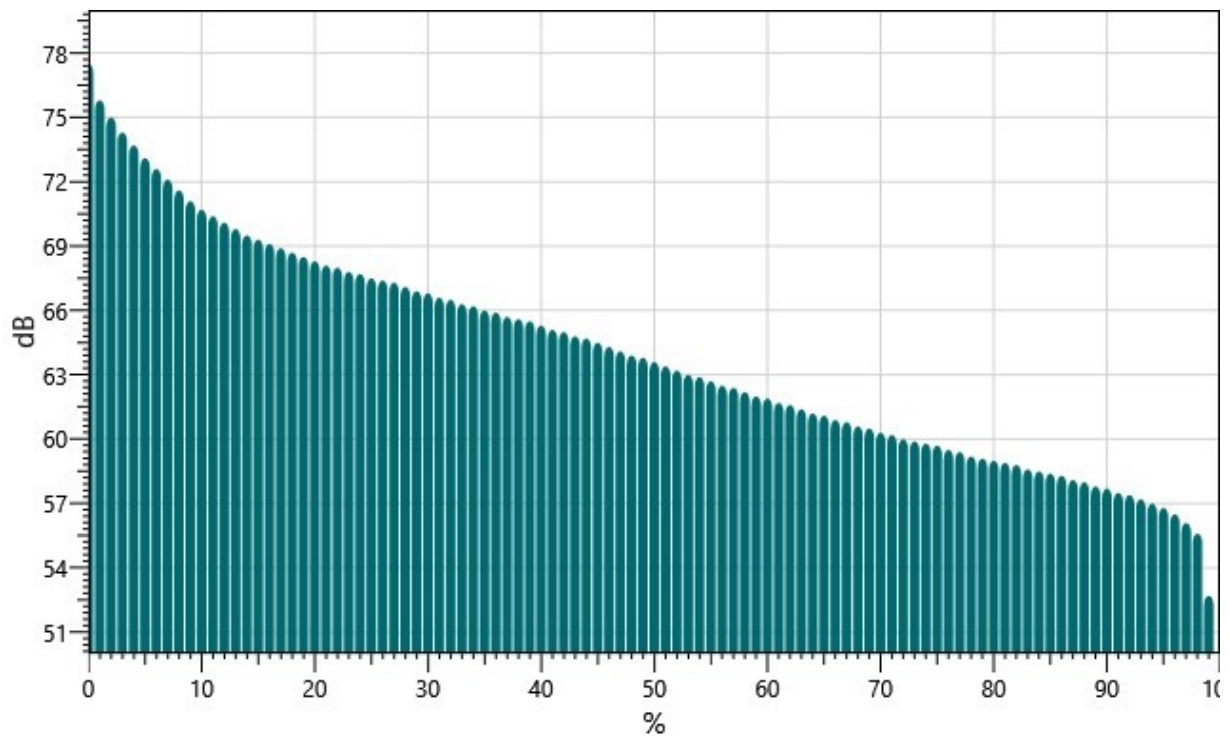
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
52:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53:	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.03
54:	0.01	0.02	0.02	0.01	0.02	0.02	0.04	0.04	0.04	0.05	0.27
55:	0.06	0.06	0.07	0.09	0.10	0.09	0.13	0.13	0.16	0.15	1.02
56:	0.21	0.23	0.27	0.30	0.14	0.31	0.34	0.35	0.39	0.39	2.94
57:	0.49	0.50	0.50	0.53	0.56	0.61	0.61	0.65	0.71	0.68	5.83
58:	0.70	0.67	0.72	0.73	0.77	0.80	0.76	0.82	0.77	0.79	7.55
59:	0.85	0.86	0.87	0.89	0.48	0.67	0.83	0.82	0.81	0.80	7.88
60:	0.81	0.73	0.77	0.72	0.72	0.67	0.70	0.66	0.64	0.63	7.04
61:	0.63	0.61	0.62	0.65	0.63	0.60	0.63	0.59	0.62	0.65	6.23
62:	0.65	0.66	0.68	0.72	0.46	0.44	0.60	0.62	0.64	0.62	6.09
63:	0.62	0.60	0.59	0.55	0.54	0.57	0.52	0.55	0.53	0.50	5.56
64:	0.54	0.54	0.54	0.56	0.60	0.59	0.58	0.58	0.59	0.63	5.76
65:	0.65	0.64	0.69	0.72	0.59	0.42	0.73	0.67	0.76	0.66	6.53
66:	0.71	0.66	0.66	0.73	0.67	0.66	0.65	0.66	0.63	0.67	6.69
67:	0.63	0.63	0.63	0.67	0.69	0.69	0.70	0.71	0.67	0.68	6.68



68:	0.68	0.66	0.68	0.66	0.58	0.28	0.56	0.56	0.50	0.51	5.68
69:	0.53	0.47	0.48	0.45	0.43	0.45	0.41	0.41	0.39	0.38	4.38
70:	0.38	0.35	0.35	0.32	0.31	0.31	0.28	0.27	0.25	0.27	3.09
71:	0.25	0.24	0.27	0.24	0.27	0.09	0.23	0.22	0.23	0.21	2.25
72:	0.23	0.19	0.20	0.22	0.20	0.21	0.19	0.20	0.20	0.19	2.02
73:	0.18	0.19	0.18	0.18	0.15	0.17	0.17	0.16	0.17	0.16	1.71
74:	0.17	0.19	0.18	0.18	0.18	0.05	0.17	0.15	0.13	0.15	1.55
75:	0.14	0.16	0.13	0.12	0.13	0.12	0.11	0.10	0.10	0.10	1.21
76:	0.09	0.06	0.07	0.07	0.06	0.06	0.06	0.05	0.07	0.06	0.66
77:	0.06	0.05	0.06	0.06	0.06	0.02	0.05	0.05	0.04	0.05	0.51
78:	0.04	0.04	0.05	0.05	0.05	0.03	0.04	0.04	0.04	0.04	0.42
79:	0.03	0.03	0.04	0.03	0.03	0.04	0.02	0.02	0.01	0.01	0.27
80:	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04
81:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
82:	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.05
83:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
84:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Exceedance Chart

Monitoring Station 2 - Meter 2 - Day time Period: Exceedance Chart

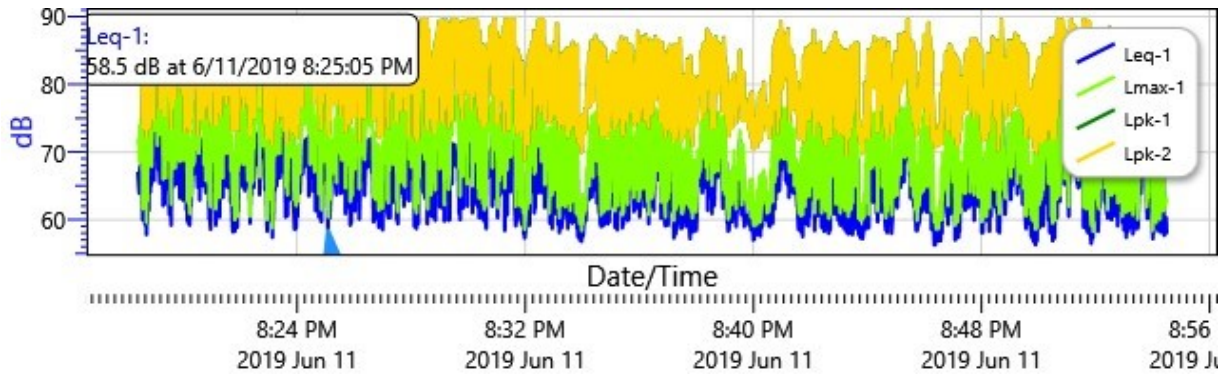


Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%:		77.5	75.8	75.0	74.3	73.7	73.1	72.6	72.1	71.6
10%:	71.1	70.7	70.4	70.1	69.8	69.5	69.3	69.1	68.9	68.7
20%:	68.5	68.3	68.1	68.0	67.8	67.7	67.5	67.4	67.3	67.1
30%:	66.9	66.8	66.6	66.5	66.3	66.2	66.0	65.9	65.7	65.6
40%:	65.5	65.3	65.1	65.0	64.8	64.7	64.5	64.3	64.1	63.9
50%:	63.8	63.6	63.4	63.2	63.0	62.9	62.7	62.5	62.4	62.2
60%:	62.0	61.9	61.7	61.6	61.4	61.2	61.1	60.9	60.8	60.6
70%:	60.5	60.3	60.2	60.0	59.9	59.8	59.7	59.5	59.4	59.2
80%:	59.1	59.0	58.9	58.8	58.6	58.5	58.4	58.3	58.1	58.0
90%:	57.8	57.7	57.5	57.4	57.2	57.0	56.8	56.5	56.1	55.6
100%:	52.7									

Logged Data Chart

Monitoring Station 2 - Meter 2 - Day time Period: Logged Data Chart



Session Report

6/12/2019

Information Panel

Company Name	"Proyecto Ensueño" - TFS Housing, LLC
Name	Monitoring Station 3 - Meter 1 - Daytime Period
Model Type	SoundPro DL
Serial Number	BLN120003
Device Firmware Rev	R.13H
Start Time	6/11/2019 8:55:56 PM
Stop Time	6/11/2019 9:27:35 PM
Run Time	00:31:39
Description	Located at northeast side of the property, near to PR-844

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
CNEL	1	75.6 dB	Dose8	1	1.2 %
L10	1	74.9 dB	L90	1	59.1 dB
LDN	1	70.6 dB	Leq	1	70.6 dB
Lmax	1	82 dB	Lmin	1	53.6 dB
Lpk	1	88.6 dB	ProjectedTWA (1.00:00)	1	75.4 dB
Rtime	1	00:31:39	TWA	1	58.8 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST			

Statistics Table

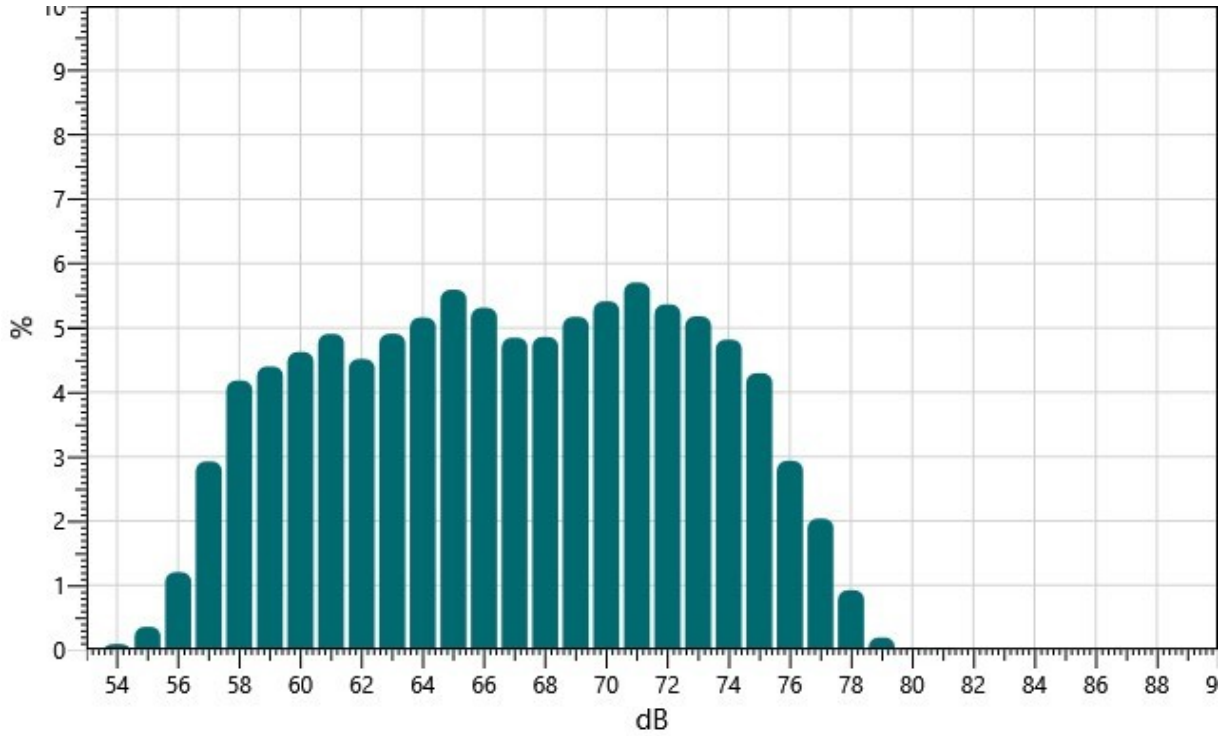
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
53:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
54:	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.09
55:	0.02	0.02	0.02	0.03	0.01	0.03	0.03	0.06	0.07	0.06	0.36
56:	0.06	0.07	0.08	0.10	0.11	0.10	0.12	0.16	0.19	0.21	1.20
57:	0.23	0.23	0.26	0.32	0.28	0.30	0.28	0.31	0.35	0.37	2.93
58:	0.38	0.40	0.47	0.50	0.25	0.34	0.45	0.45	0.47	0.46	4.18
59:	0.45	0.47	0.46	0.45	0.42	0.42	0.44	0.42	0.43	0.45	4.40
60:	0.46	0.44	0.45	0.45	0.46	0.48	0.48	0.46	0.46	0.48	4.63
61:	0.53	0.56	0.54	0.57	0.37	0.38	0.51	0.50	0.49	0.45	4.91

62:	0.47	0.48	0.42	0.44	0.45	0.46	0.45	0.41	0.46	0.48	4.52
63:	0.46	0.46	0.47	0.48	0.50	0.48	0.50	0.51	0.51	0.54	4.91
64:	0.55	0.50	0.56	0.60	0.41	0.33	0.57	0.58	0.55	0.51	5.16
65:	0.55	0.60	0.54	0.58	0.59	0.59	0.55	0.58	0.51	0.50	5.59
66:	0.56	0.53	0.51	0.55	0.51	0.53	0.53	0.55	0.52	0.53	5.31
67:	0.55	0.54	0.53	0.56	0.47	0.24	0.50	0.48	0.52	0.45	4.85
68:	0.49	0.53	0.48	0.50	0.46	0.46	0.50	0.50	0.50	0.44	4.86
69:	0.52	0.50	0.51	0.50	0.51	0.54	0.52	0.50	0.53	0.54	5.17
70:	0.57	0.61	0.60	0.57	0.61	0.20	0.57	0.56	0.56	0.57	5.41
71:	0.60	0.61	0.55	0.58	0.56	0.55	0.61	0.58	0.54	0.53	5.71
72:	0.55	0.56	0.54	0.53	0.51	0.52	0.54	0.57	0.53	0.53	5.37
73:	0.55	0.57	0.57	0.60	0.56	0.19	0.55	0.53	0.53	0.53	5.18
74:	0.50	0.52	0.53	0.51	0.48	0.50	0.47	0.44	0.46	0.42	4.82
75:	0.48	0.46	0.45	0.44	0.41	0.43	0.43	0.39	0.42	0.40	4.30
76:	0.37	0.34	0.35	0.33	0.36	0.10	0.29	0.29	0.24	0.26	2.93
77:	0.23	0.23	0.21	0.23	0.24	0.22	0.18	0.16	0.14	0.18	2.04
78:	0.15	0.13	0.12	0.12	0.08	0.08	0.07	0.06	0.05	0.05	0.92
79:	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.19
80:	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
81:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
82:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Statistics Chart

Monitoring Station 3 - Meter 1 - Daytime Period: Statistics Chart



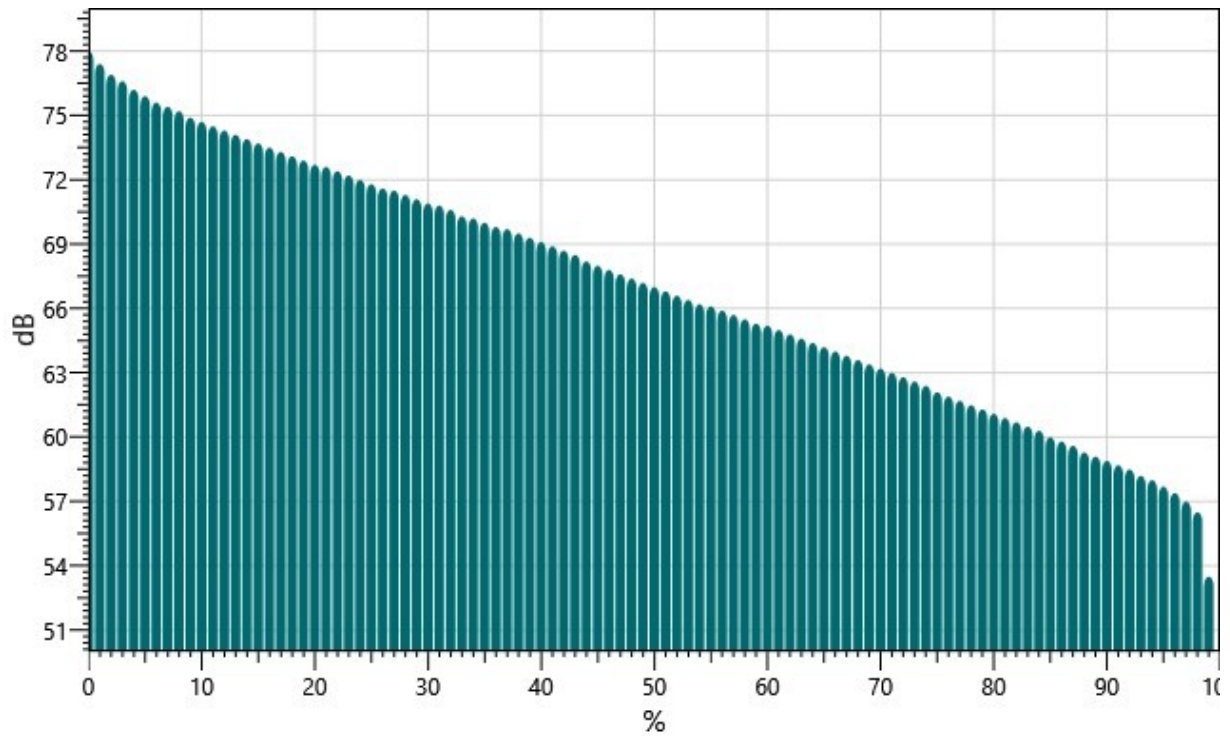
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		78.0	77.4	76.9	76.6	76.2	75.9	75.6	75.4	75.2
10%:	74.9	74.7	74.5	74.3	74.1	73.9	73.7	73.5	73.3	73.1
20%:	72.9	72.7	72.6	72.4	72.2	72.0	71.8	71.6	71.5	71.3
30%:	71.1	70.9	70.8	70.6	70.3	70.2	70.0	69.8	69.7	69.5
40%:	69.3	69.1	68.9	68.7	68.5	68.2	68.0	67.8	67.6	67.4
50%:	67.2	67.0	66.8	66.6	66.4	66.2	66.1	65.9	65.7	65.5
60%:	65.3	65.2	65.0	64.8	64.6	64.4	64.2	64.0	63.8	63.6
70%:	63.4	63.2	63.0	62.8	62.6	62.4	62.1	61.9	61.7	61.5
80%:	61.3	61.1	60.9	60.7	60.5	60.3	60.0	59.8	59.6	59.3
90%:	59.1	58.9	58.7	58.5	58.2	58.0	57.7	57.4	57.0	56.5
100%:	53.5									



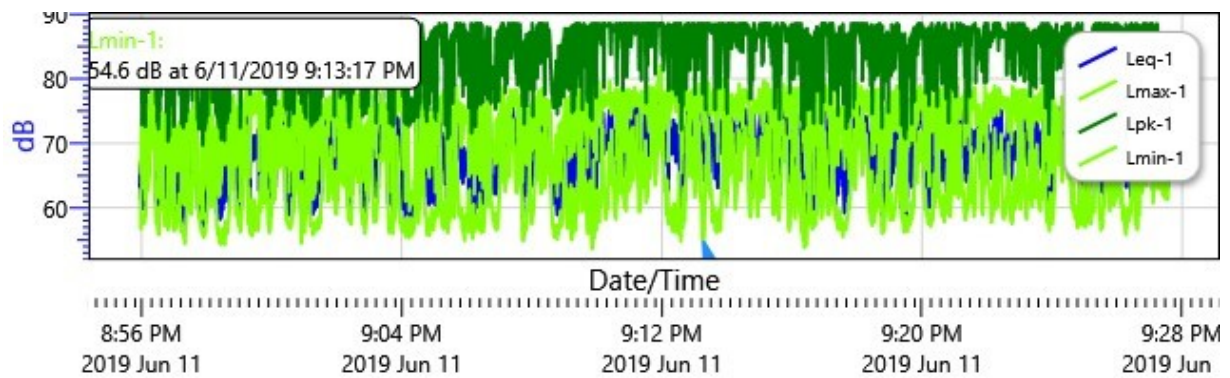
Exceedance Chart

Monitoring Station 3 - Meter 1 - Daytime Period: Exceedance Chart



Logged Data Chart

Monitoring Station 3 - Meter 1 - Daytime Period: Logged Data Chart



Session Report

6/12/2019

Information Panel

Company Name "Proyecto Ensueño" - TFS Housing, LLC
Name Monitoring Station 4 - Meter 2 - Daytime Period
Model Type SoundPro DL
Serial Number BLL100004
Device Firmware Rev R.13H
Start Time 6/11/2019 8:56:22 PM
Stop Time 6/11/2019 9:28:05 PM
Run Time 00:31:43
Description Located at northeast side of the property, near to PR-844

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Rtime	1	00:31:43	Lmin	1	55.4 dB
Lmax	1	83 dB	Lpk	1	89.6 dB
Leq	1	67.8 dB	TWA	1	56 dB
ProjectedTWA (1.00:00)	1	72.5 dB	Dose8	1	0.6 %
LDN	1	67.8 dB	CNEL	1	72.8 dB
L10	1	71.9 dB	L90	1	59.9 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST			

Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
55:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56:	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.10
57:	0.01	0.03	0.04	0.05	0.05	0.05	0.07	0.07	0.08	0.09	0.53
58:	0.12	0.15	0.18	0.19	0.25	0.27	0.31	0.36	0.42	0.44	2.69
59:	0.51	0.57	0.64	0.71	0.39	0.55	0.75	0.79	0.74	0.84	6.48
60:	0.78	0.80	0.79	0.80	0.88	0.82	0.91	0.85	0.94	0.91	8.49
61:	0.97	0.98	0.99	0.98	0.97	0.96	1.01	1.04	1.06	1.06	10.03
62:	1.08	1.14	1.18	1.26	0.81	0.81	1.17	1.06	1.01	1.00	10.53
63:	1.00	1.01	0.95	0.88	0.88	0.85	0.88	0.80	0.84	0.85	8.96

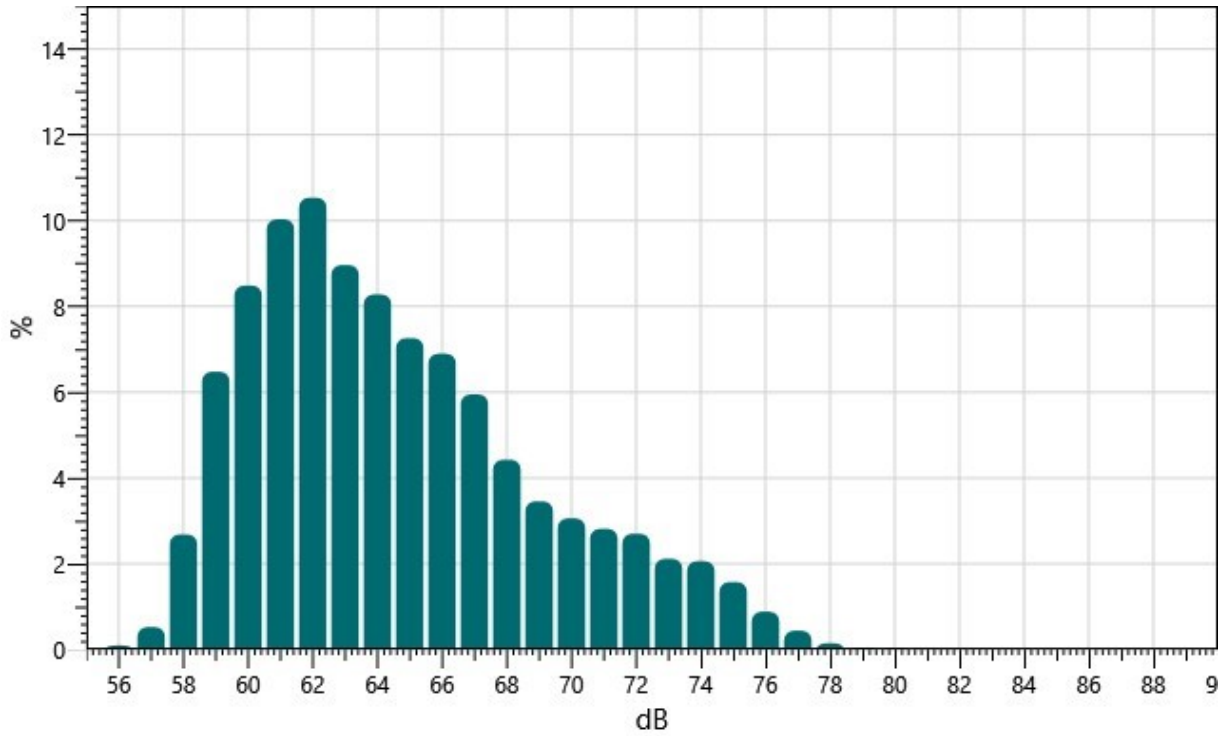


64:	0.78	0.84	0.86	0.86	0.82	0.82	0.79	0.81	0.83	0.87	8.28
65:	0.83	0.81	0.83	0.88	0.58	0.44	0.73	0.73	0.73	0.70	7.26
66:	0.68	0.69	0.69	0.69	0.71	0.69	0.71	0.71	0.68	0.65	6.90
67:	0.67	0.63	0.65	0.65	0.61	0.57	0.56	0.57	0.53	0.50	5.95
68:	0.51	0.52	0.50	0.49	0.43	0.24	0.47	0.46	0.40	0.41	4.43
69:	0.38	0.38	0.35	0.36	0.33	0.37	0.32	0.32	0.32	0.33	3.46
70:	0.31	0.30	0.31	0.33	0.31	0.31	0.27	0.30	0.31	0.31	3.06
71:	0.29	0.32	0.30	0.34	0.32	0.12	0.30	0.29	0.30	0.25	2.82
72:	0.30	0.28	0.31	0.28	0.27	0.28	0.28	0.25	0.25	0.22	2.70
73:	0.21	0.20	0.21	0.19	0.21	0.23	0.19	0.22	0.23	0.22	2.12
74:	0.21	0.22	0.22	0.25	0.25	0.08	0.21	0.23	0.21	0.19	2.06
75:	0.20	0.19	0.17	0.15	0.16	0.15	0.15	0.14	0.12	0.13	1.58
76:	0.11	0.11	0.11	0.10	0.10	0.08	0.07	0.06	0.07	0.08	0.89
77:	0.06	0.06	0.05	0.05	0.05	0.02	0.04	0.04	0.04	0.04	0.44
78:	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.15
79:	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.05
80:	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03
81:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
82:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
83:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Statistics Chart

Monitoring Station 4 - Meter 2 - Daytime Period: Statistics Chart



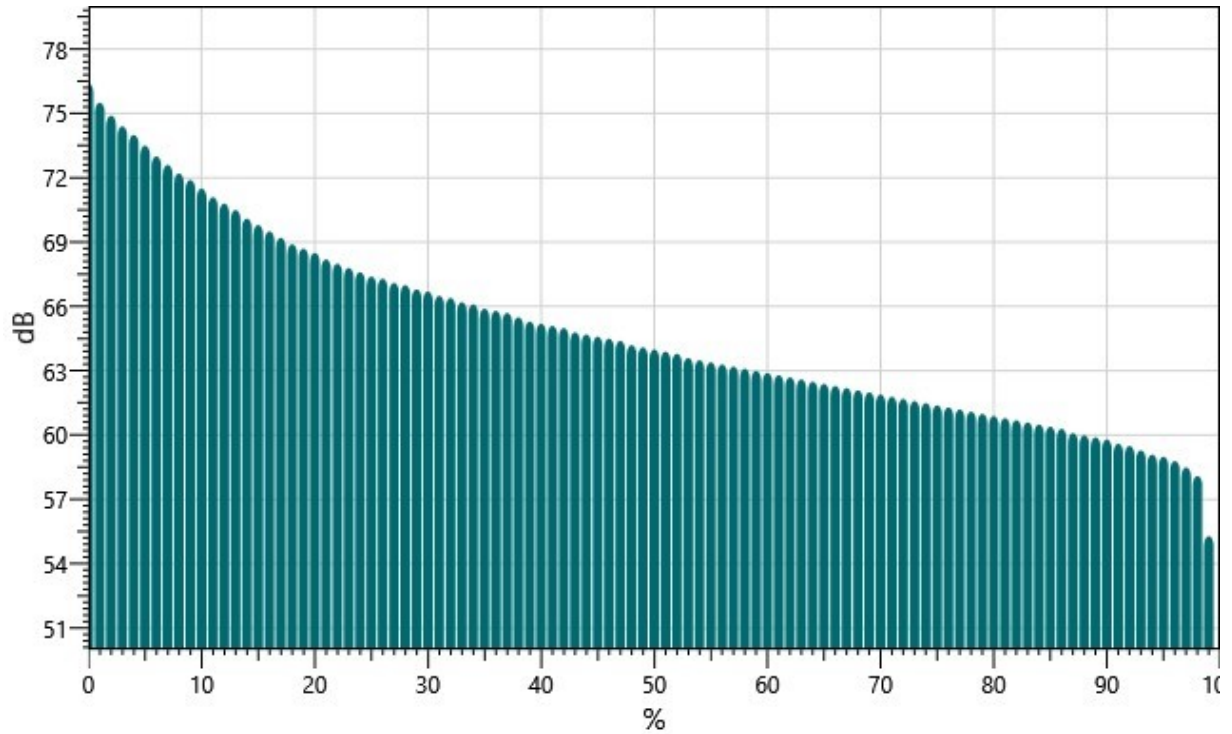
Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%:		76.4	75.5	74.9	74.4	74.0	73.5	73.0	72.6	72.2
10%:	71.9	71.5	71.1	70.8	70.5	70.1	69.8	69.5	69.2	68.9
20%:	68.7	68.5	68.2	68.0	67.8	67.6	67.4	67.3	67.1	67.0
30%:	66.8	66.7	66.5	66.4	66.2	66.1	65.9	65.8	65.7	65.5
40%:	65.3	65.2	65.1	65.0	64.8	64.7	64.6	64.5	64.4	64.2
50%:	64.1	64.0	63.9	63.8	63.6	63.5	63.4	63.3	63.2	63.1
60%:	63.0	62.9	62.8	62.7	62.6	62.5	62.4	62.3	62.2	62.1
70%:	62.0	61.9	61.8	61.7	61.6	61.5	61.4	61.3	61.2	61.1
80%:	61.0	60.9	60.8	60.7	60.6	60.5	60.4	60.3	60.1	60.0
90%:	59.9	59.8	59.6	59.5	59.3	59.1	59.0	58.8	58.5	58.1
100%:	55.3									



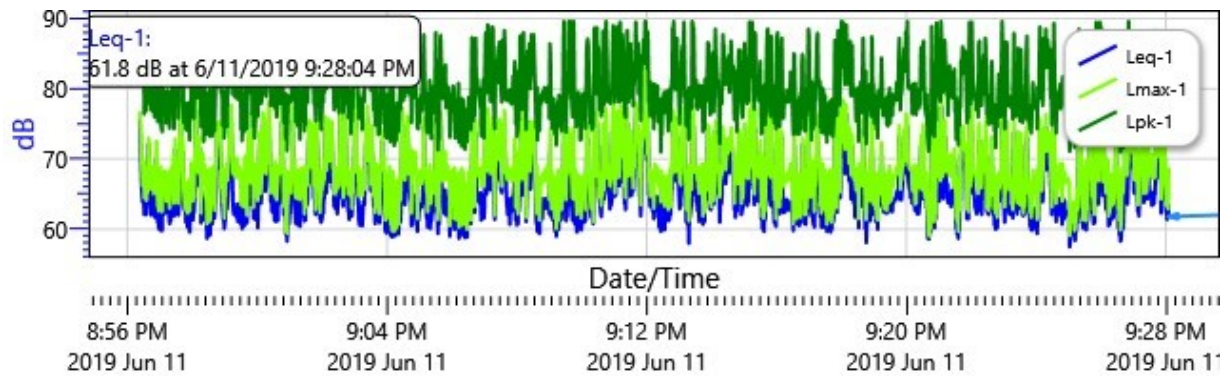
Exceedance Chart

Monitoring Station 4 - Meter 2 - Daytime Period: Exceedance Chart



Logged Data Chart

Monitoring Station 4 - Meter 2 - Daytime Period: Logged Data Chart



Session Report

6/12/2019

Information Panel

Company Name	"Proyecto Ensueño" - TFS Housing, LLC
Name	Monitoring Station 1 - Meter 1 - Night time Period
Model Type	SoundPro DL
Serial Number	BLN120003
Device Firmware Rev	R.13H
Start Time	6/11/2019 10:01:48 PM
Stop Time	6/11/2019 10:31:51 PM
Run Time	00:30:03
Description	Located at north side of the property, near to "Camino Tauque"

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Leq	1	59.9 dB	CNEL	1	69.9 dB
Dose8	1	0.1 %	L10	1	62 dB
L90	1	57.4 dB	LDN	1	69.9 dB
Lmax	1	77.4 dB	Lmin	1	49.6 dB
Lpk	1	88.3 dB	ProjectedTWA (1.00:00)	1	64.6 dB
Rtime	1	00:30:03	TWA	1	47.8 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST			

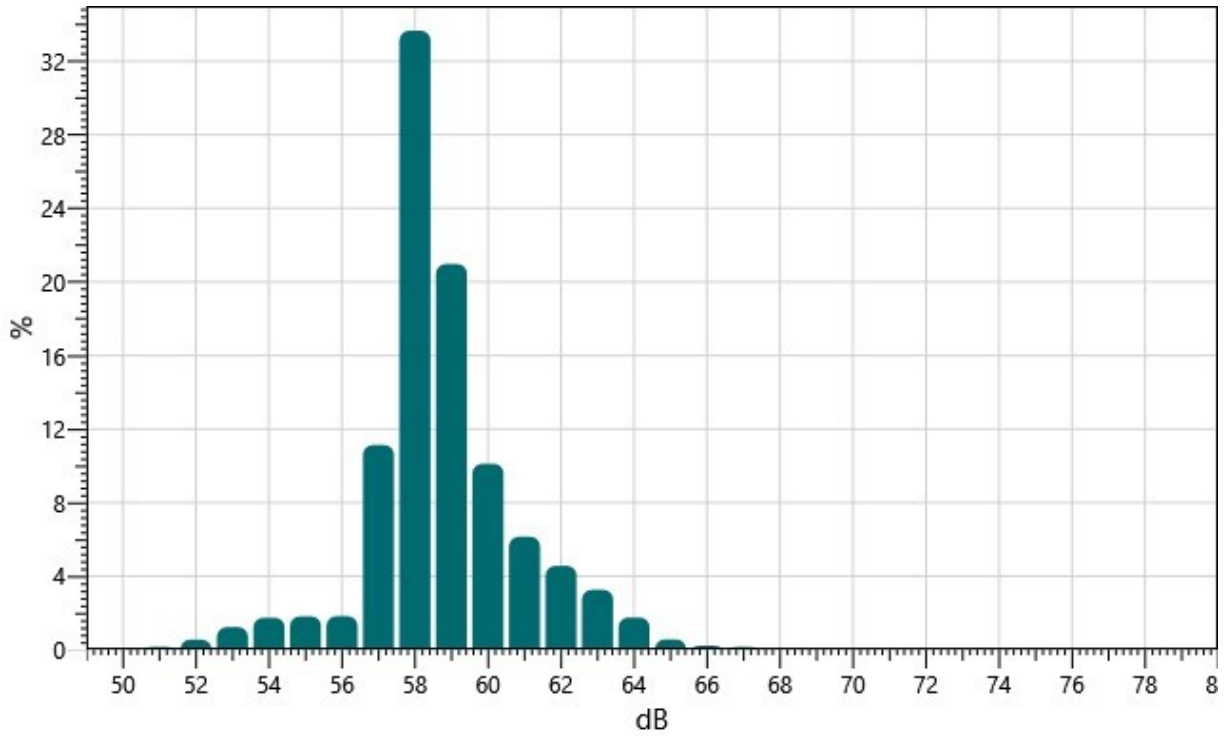
Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
49:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.04
51:	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.03	0.02	0.16
52:	0.03	0.04	0.04	0.07	0.02	0.06	0.06	0.06	0.08	0.08	0.55
53:	0.12	0.10	0.11	0.10	0.13	0.12	0.12	0.14	0.13	0.16	1.23
54:	0.14	0.15	0.16	0.18	0.18	0.18	0.19	0.20	0.19	0.18	1.74
55:	0.20	0.20	0.21	0.21	0.07	0.14	0.20	0.19	0.19	0.20	1.81
56:	0.19	0.21	0.19	0.15	0.19	0.16	0.18	0.19	0.19	0.18	1.82
57:	0.24	0.30	0.42	0.62	0.82	1.06	1.38	1.78	2.05	2.45	11.13

58:	2.92	3.33	3.64	4.03	2.23	3.13	3.79	3.70	3.57	3.33	33.66
59:	3.11	2.85	2.53	2.26	2.01	1.90	1.79	1.60	1.47	1.45	20.97
60:	1.31	1.23	1.11	1.07	0.97	0.99	0.92	0.85	0.87	0.78	10.11
61:	0.76	0.76	0.76	0.71	0.45	0.44	0.56	0.59	0.56	0.56	6.14
62:	0.48	0.49	0.45	0.46	0.41	0.47	0.47	0.47	0.45	0.42	4.56
63:	0.42	0.37	0.36	0.35	0.30	0.32	0.30	0.29	0.27	0.28	3.25
64:	0.27	0.27	0.26	0.20	0.16	0.11	0.13	0.15	0.11	0.10	1.75
65:	0.06	0.06	0.06	0.05	0.06	0.07	0.06	0.05	0.06	0.04	0.56
66:	0.05	0.04	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.02	0.22
67:	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01	0.01	0.15
68:	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
69:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
70:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
71:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
72:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
73:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
74:	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.03
75:	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
76:	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
77:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Statistics Chart

Monitoring Station 1 - Meter 1 - Night time Period: Statistics Chart

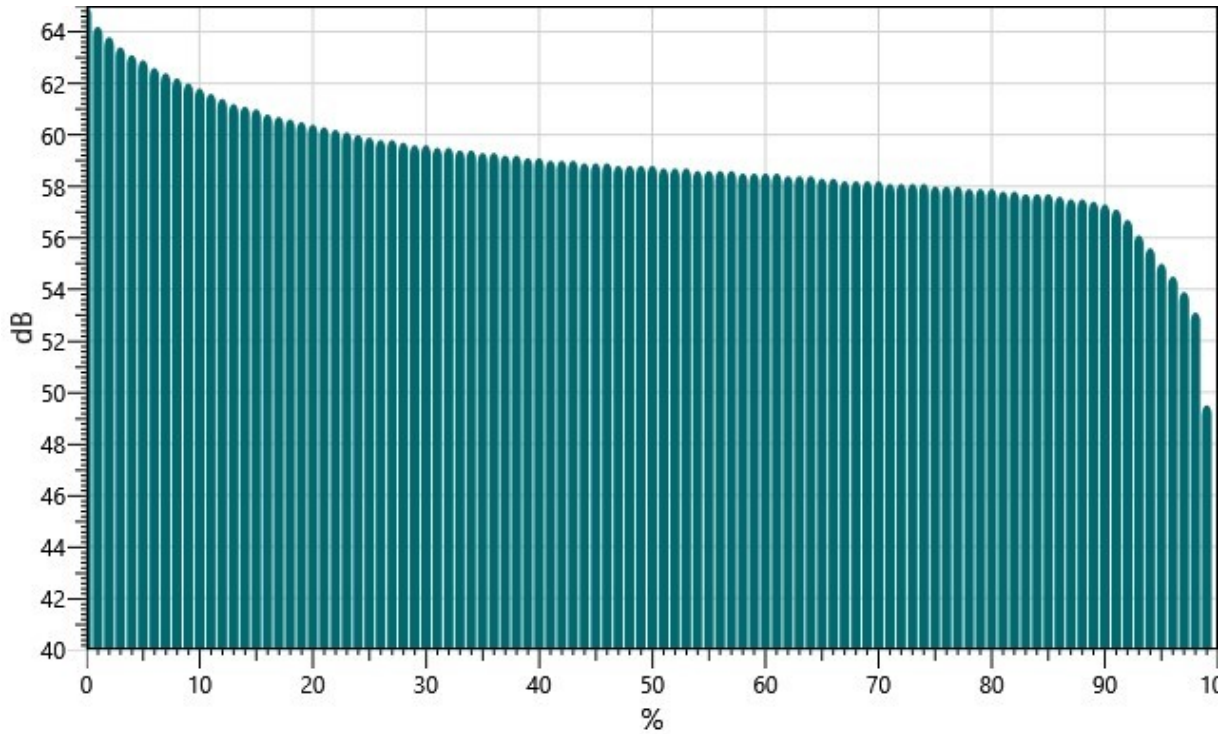


Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		65.0	64.2	63.8	63.4	63.1	62.9	62.6	62.4	62.2
10%:	62.0	61.8	61.6	61.4	61.2	61.1	61.0	60.8	60.7	60.6
20%:	60.5	60.4	60.3	60.2	60.1	60.0	59.9	59.8	59.8	59.7
30%:	59.6	59.6	59.5	59.5	59.4	59.4	59.3	59.3	59.2	59.2
40%:	59.1	59.1	59.0	59.0	59.0	58.9	58.9	58.9	58.8	58.8
50%:	58.8	58.8	58.7	58.7	58.7	58.6	58.6	58.6	58.6	58.5
60%:	58.5	58.5	58.5	58.4	58.4	58.4	58.3	58.3	58.2	58.2
70%:	58.2	58.2	58.1	58.1	58.1	58.1	58.0	58.0	58.0	57.9
80%:	57.9	57.9	57.8	57.8	57.7	57.7	57.7	57.6	57.5	57.5
90%:	57.4	57.3	57.1	56.7	56.1	55.6	55.0	54.5	53.9	53.1
100%:	49.5									

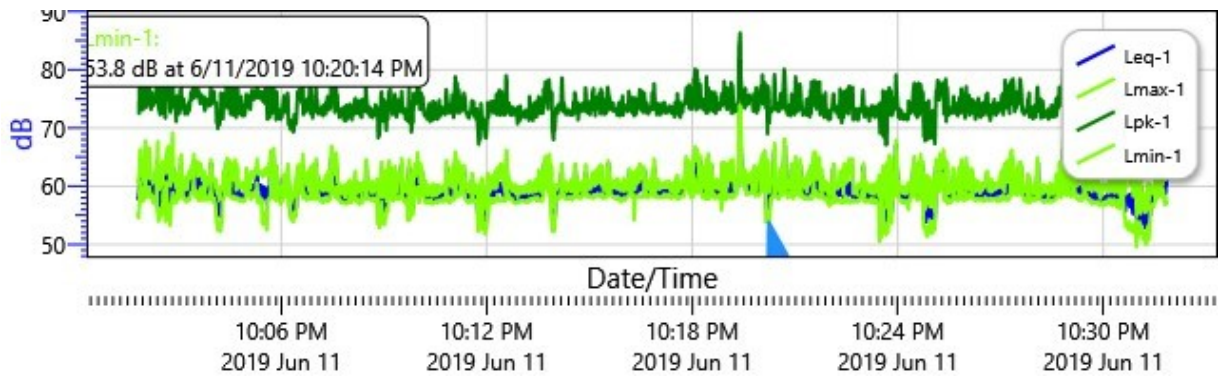
Exceedance Chart

Monitoring Station 1 - Meter 1 - Night time Period: Exceedance Chart



Logged Data Chart

Monitoring Station 1 - Meter 1 - Night time Period: Logged Data Chart



Session Report

6/12/2019

Information Panel

Company Name	"Proyecto Ensueño" - TFS Housing, LLC
Name	Monitoring Station 2 - Meter 2 - Night time Period
Model Type	SoundPro DL
Serial Number	BLL100004
Device Firmware Rev	R.13H
Start Time	6/11/2019 10:01:40 PM
Stop Time	6/11/2019 10:31:43 PM
Run Time	00:30:03
Description	Located at northeast side of the property, near to "Camino Tauque"

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Leq	1	65.1 dB	CNEL	1	75.1 dB
Dose8	1	0.3 %	L10	1	68.6 dB
L90	1	55.2 dB	LDN	1	75.1 dB
Lmax	1	81.2 dB	Lmin	1	51.7 dB
Lpk	1	89.6 dB	ProjectedTWA (1.00:00)	1	69.9 dB
Rtime	1	00:30:03	TWA	1	53.1 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST			

Statistics Table

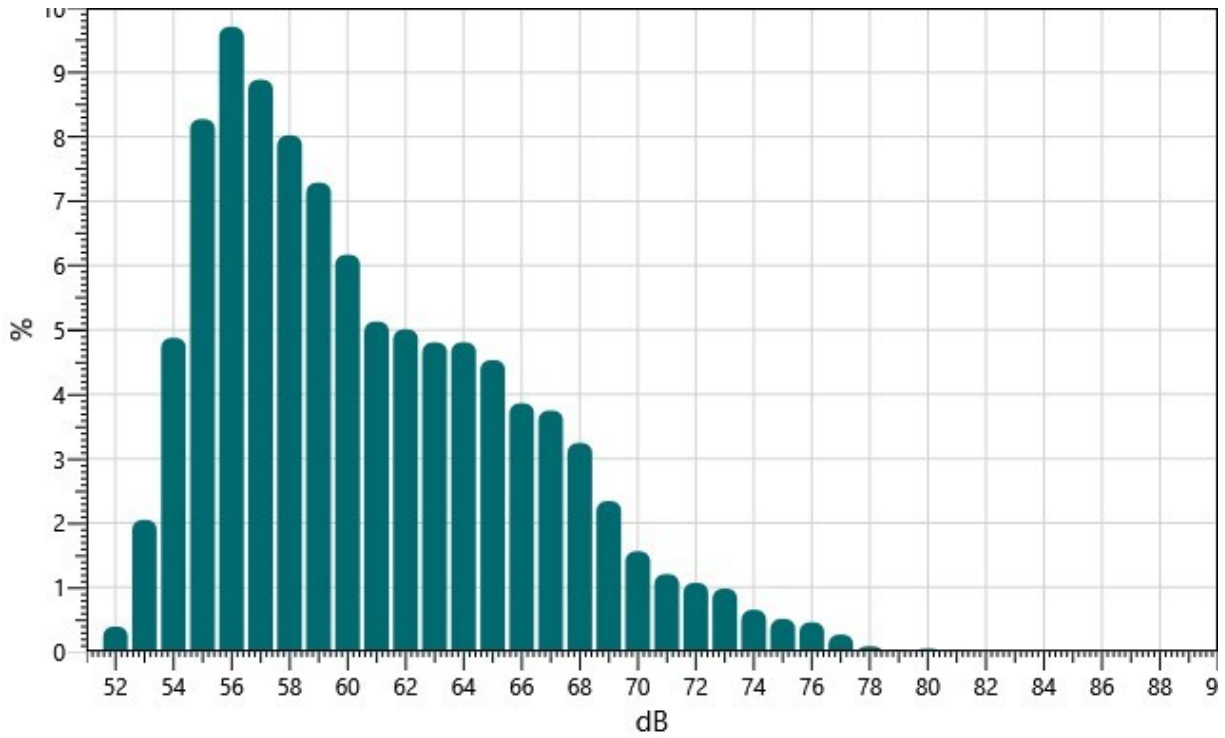
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
51:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
52:	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.05	0.08	0.09	0.39
53:	0.12	0.16	0.15	0.18	0.05	0.21	0.25	0.28	0.31	0.33	2.05
54:	0.37	0.39	0.40	0.44	0.45	0.49	0.53	0.59	0.57	0.66	4.88
55:	0.68	0.74	0.71	0.76	0.81	0.86	0.90	0.89	0.96	0.97	8.28
56:	0.99	1.02	1.04	1.14	0.45	0.92	1.08	1.03	1.01	1.03	9.71
57:	1.03	0.92	0.94	0.97	0.87	0.89	0.85	0.79	0.83	0.80	8.89
58:	0.80	0.84	0.80	0.79	0.79	0.79	0.82	0.77	0.82	0.81	8.02
59:	0.79	0.77	0.84	0.80	0.44	0.66	0.79	0.74	0.71	0.74	7.29

60:	0.70	0.66	0.64	0.64	0.59	0.63	0.60	0.57	0.58	0.55	6.17
61:	0.54	0.54	0.49	0.53	0.53	0.48	0.48	0.53	0.52	0.49	5.13
62:	0.51	0.52	0.58	0.57	0.40	0.34	0.51	0.51	0.55	0.51	5.01
63:	0.53	0.51	0.46	0.49	0.50	0.48	0.45	0.46	0.48	0.45	4.81
64:	0.48	0.50	0.47	0.51	0.46	0.51	0.45	0.50	0.48	0.46	4.81
65:	0.47	0.49	0.50	0.52	0.38	0.28	0.44	0.50	0.47	0.49	4.53
66:	0.46	0.42	0.36	0.36	0.37	0.40	0.36	0.37	0.40	0.35	3.86
67:	0.36	0.37	0.36	0.36	0.36	0.39	0.40	0.37	0.41	0.37	3.75
68:	0.37	0.41	0.40	0.41	0.30	0.14	0.31	0.29	0.29	0.30	3.24
69:	0.29	0.28	0.25	0.26	0.25	0.22	0.21	0.20	0.19	0.19	2.34
70:	0.18	0.17	0.16	0.16	0.14	0.17	0.16	0.15	0.15	0.13	1.56
71:	0.14	0.13	0.12	0.16	0.13	0.07	0.14	0.12	0.11	0.10	1.20
72:	0.10	0.10	0.11	0.10	0.11	0.10	0.11	0.11	0.12	0.11	1.07
73:	0.12	0.11	0.10	0.09	0.08	0.11	0.09	0.12	0.08	0.08	0.98
74:	0.08	0.08	0.08	0.08	0.07	0.02	0.06	0.06	0.06	0.05	0.65
75:	0.05	0.06	0.05	0.06	0.05	0.05	0.05	0.04	0.05	0.05	0.51
76:	0.04	0.05	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.05	0.45
77:	0.05	0.03	0.03	0.04	0.04	0.01	0.02	0.02	0.02	0.02	0.27
78:	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.08
79:	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.02
80:	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.05
81:	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02



Statistics Chart

Monitoring Station 2 - Meter 2 - Night time Period: Statistics Chart



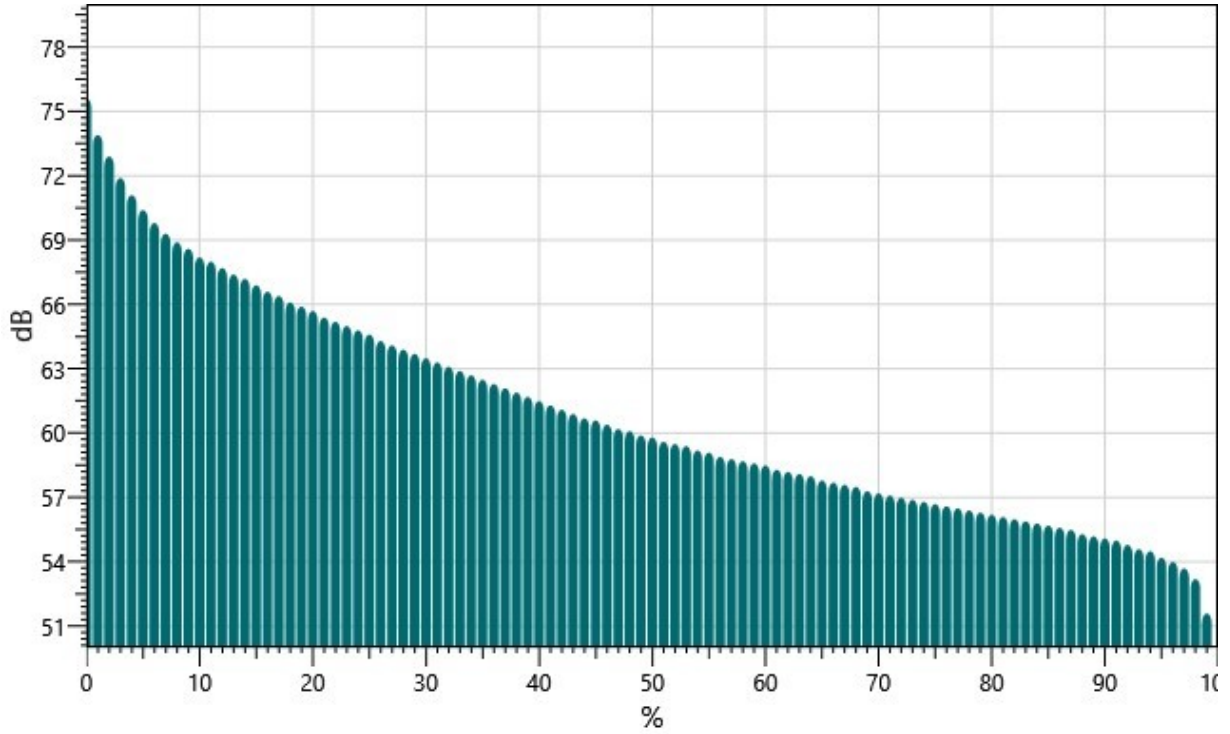
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		75.6	73.9	72.9	71.9	71.1	70.4	69.8	69.3	68.9
10%:	68.6	68.2	68.0	67.7	67.4	67.2	66.9	66.6	66.4	66.1
20%:	65.9	65.7	65.4	65.2	65.0	64.8	64.6	64.3	64.1	63.9
30%:	63.7	63.5	63.3	63.1	62.9	62.7	62.5	62.3	62.1	61.9
40%:	61.7	61.5	61.3	61.1	60.9	60.7	60.6	60.4	60.2	60.1
50%:	59.9	59.8	59.6	59.5	59.4	59.2	59.1	58.9	58.8	58.7
60%:	58.6	58.5	58.3	58.2	58.1	58.0	57.8	57.7	57.6	57.5
70%:	57.3	57.2	57.1	57.0	56.9	56.8	56.7	56.6	56.5	56.4
80%:	56.3	56.2	56.1	56.0	55.9	55.8	55.7	55.6	55.5	55.3
90%:	55.2	55.1	55.0	54.8	54.6	54.5	54.2	54.0	53.7	53.2
100%:	51.6									



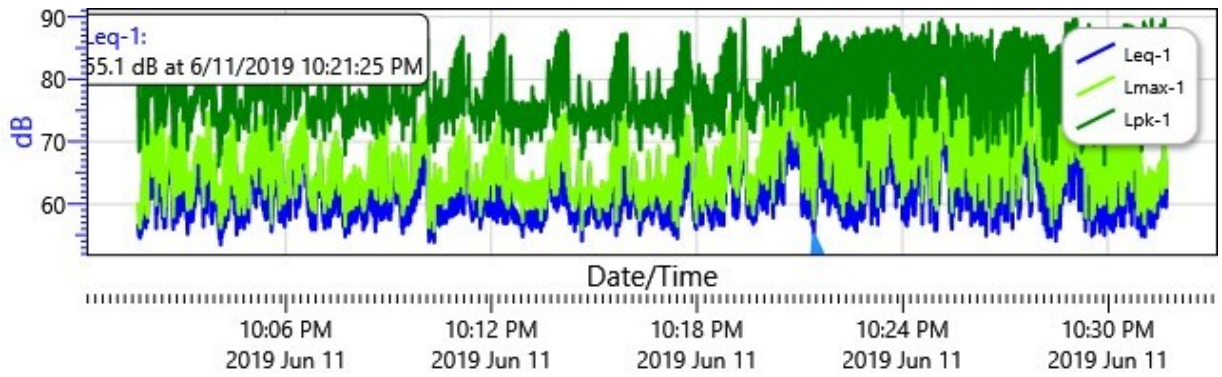
Exceedance Chart

Monitoring Station 2 - Meter 2 - Night time Period: Exceedance Chart



Logged Data Chart

Monitoring Station 2 - Meter 2 - Night time Period: Logged Data Chart



Session Report

6/12/2019

Information Panel

Company Name	"Proyecto Ensueño" - TFS Housing, LLC
Name	Monitoring Station 3 - Meter 1 - Night time Period
Model Type	SoundPro DL
Serial Number	BLN120003
Device Firmware Rev	R.13H
Start Time	6/11/2019 10:33:09 PM
Stop Time	6/11/2019 11:03:49 PM
Run Time	00:30:40
Description	Located at northeast side of the property, near to PR-844

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Rtime	1	00:30:40	Lmin	1	50.4 dB
Lmax	1	76.9 dB	Lpk	1	88.6 dB
Leq	1	63.7 dB	ProjectedTWA (1.00:00)	1	68.5 dB
Dose8	1	0.2 %	LDN	1	73.7 dB
CNEL	1	73.7 dB	Takt	1	68.4 dB
L10	1	67 dB	L90	1	53.4 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST			

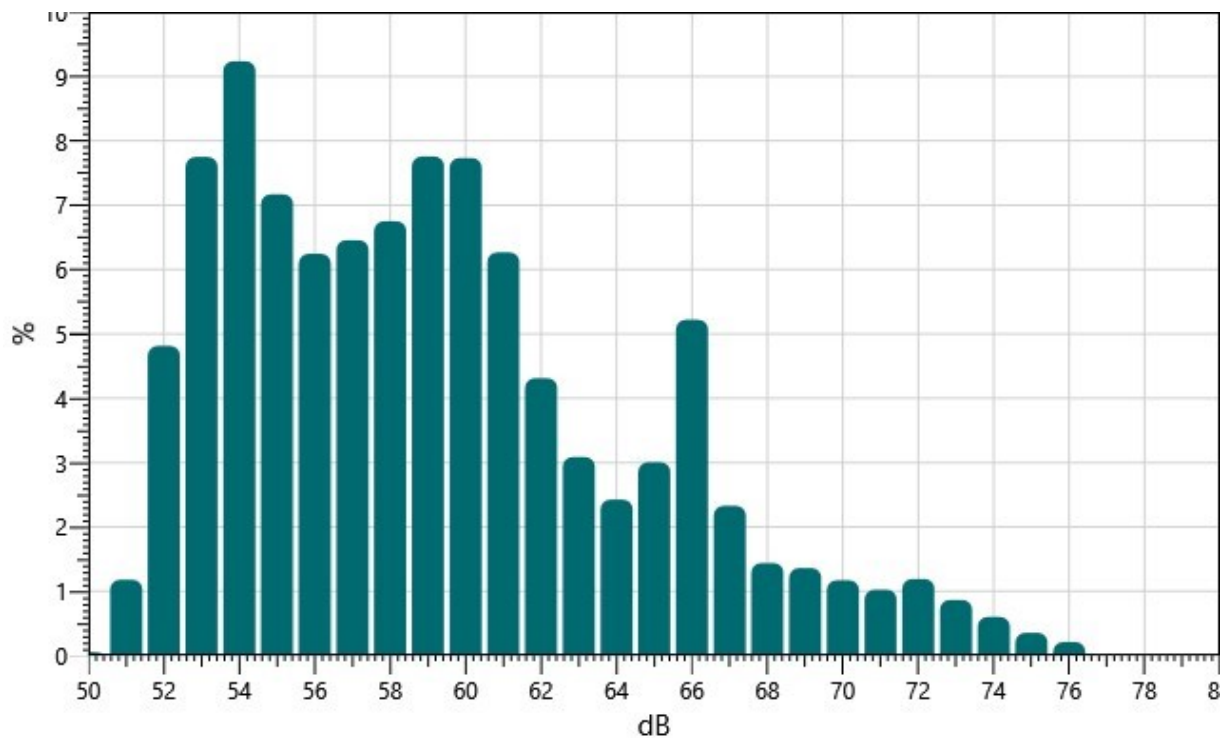
Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.06
51:	0.03	0.05	0.06	0.07	0.08	0.11	0.13	0.18	0.23	0.25	1.18
52:	0.30	0.38	0.46	0.52	0.21	0.50	0.55	0.61	0.60	0.68	4.81
53:	0.67	0.69	0.69	0.71	0.76	0.78	0.86	0.81	0.90	0.88	7.75
54:	0.96	0.88	0.94	0.97	0.97	0.89	0.93	0.87	0.92	0.90	9.24
55:	0.82	0.90	0.82	0.84	0.33	0.68	0.71	0.71	0.66	0.69	7.17
56:	0.63	0.63	0.66	0.63	0.64	0.65	0.59	0.60	0.58	0.62	6.24
57:	0.58	0.59	0.61	0.63	0.64	0.70	0.68	0.65	0.71	0.67	6.46
58:	0.68	0.67	0.74	0.73	0.40	0.61	0.76	0.74	0.72	0.68	6.75

59:	0.78	0.76	0.78	0.78	0.76	0.75	0.76	0.81	0.80	0.79	7.76
60:	0.83	0.84	0.84	0.83	0.84	0.72	0.78	0.74	0.67	0.64	7.73
61:	0.60	0.69	0.68	0.74	0.49	0.49	0.66	0.68	0.64	0.60	6.27
62:	0.54	0.51	0.48	0.42	0.43	0.37	0.40	0.37	0.39	0.40	4.31
63:	0.31	0.38	0.33	0.32	0.30	0.29	0.30	0.31	0.28	0.25	3.09
64:	0.30	0.26	0.26	0.27	0.19	0.16	0.30	0.27	0.20	0.22	2.43
65:	0.20	0.20	0.22	0.22	0.23	0.24	0.30	0.35	0.43	0.61	3.00
66:	0.63	0.64	0.63	0.62	0.55	0.46	0.38	0.47	0.43	0.40	5.22
67:	0.32	0.28	0.28	0.26	0.23	0.14	0.23	0.22	0.18	0.19	2.33
68:	0.17	0.16	0.15	0.17	0.14	0.12	0.14	0.13	0.14	0.13	1.44
69:	0.14	0.13	0.13	0.17	0.14	0.13	0.12	0.14	0.15	0.12	1.36
70:	0.14	0.15	0.15	0.11	0.13	0.04	0.09	0.11	0.11	0.13	1.17
71:	0.10	0.09	0.10	0.10	0.10	0.12	0.11	0.10	0.11	0.09	1.03
72:	0.11	0.11	0.11	0.13	0.13	0.13	0.11	0.12	0.13	0.12	1.19
73:	0.12	0.11	0.10	0.08	0.10	0.03	0.09	0.09	0.07	0.08	0.87
74:	0.06	0.06	0.07	0.07	0.08	0.06	0.07	0.05	0.05	0.05	0.60
75:	0.05	0.03	0.05	0.04	0.05	0.04	0.04	0.02	0.02	0.02	0.36
76:	0.03	0.03	0.04	0.04	0.02	0.01	0.02	0.02	0.01	0.01	0.21

Statistics Chart

Monitoring Station 3 - Meter 1 - Night time Period: Statistics Chart

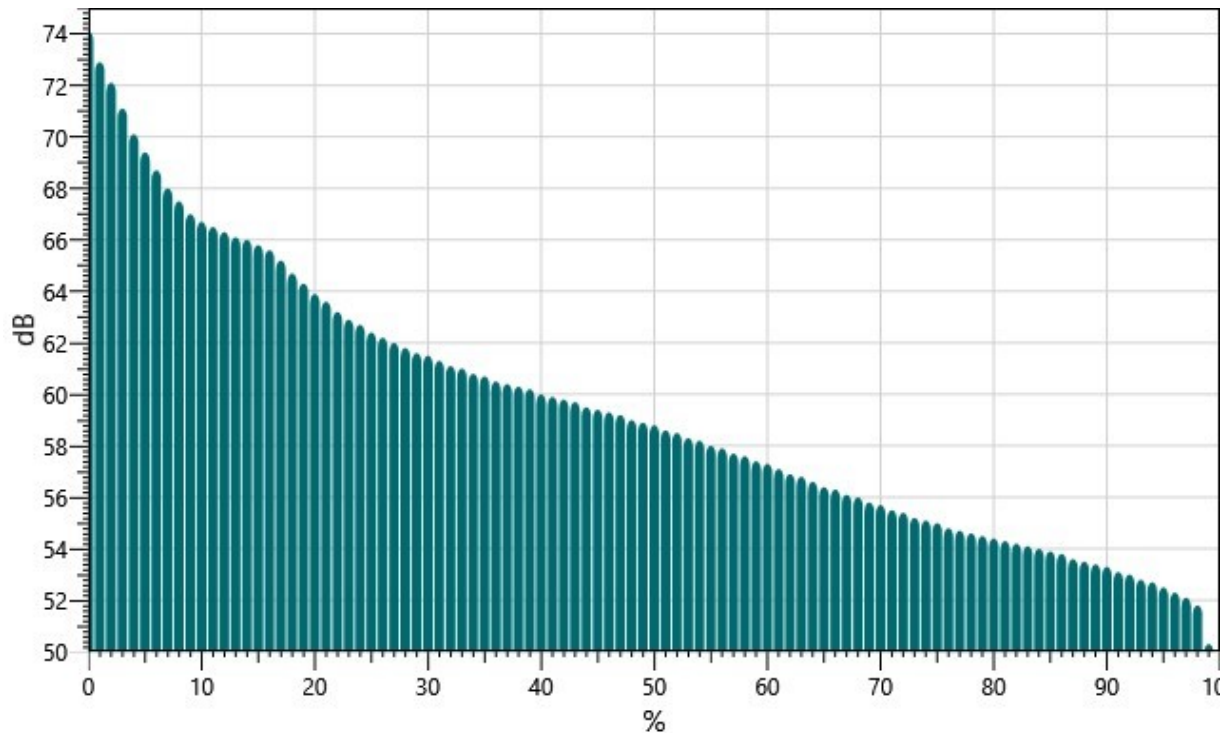


Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		74.1	72.9	72.1	71.1	70.1	69.4	68.7	68.0	67.5
10%:	67.0	66.7	66.5	66.3	66.1	66.0	65.8	65.6	65.2	64.7
20%:	64.3	63.9	63.6	63.2	62.9	62.7	62.4	62.2	62.0	61.8
30%:	61.6	61.5	61.3	61.1	61.0	60.8	60.7	60.5	60.4	60.3
40%:	60.2	60.0	59.9	59.8	59.7	59.5	59.4	59.3	59.2	59.0
50%:	58.9	58.8	58.6	58.5	58.3	58.2	58.0	57.9	57.7	57.6
60%:	57.4	57.3	57.1	56.9	56.8	56.6	56.4	56.3	56.1	56.0
70%:	55.8	55.7	55.5	55.4	55.2	55.1	55.0	54.8	54.7	54.6
80%:	54.5	54.4	54.3	54.2	54.1	54.0	53.9	53.8	53.6	53.5
90%:	53.4	53.3	53.1	53.0	52.8	52.7	52.5	52.3	52.1	51.8
100%:	50.3									

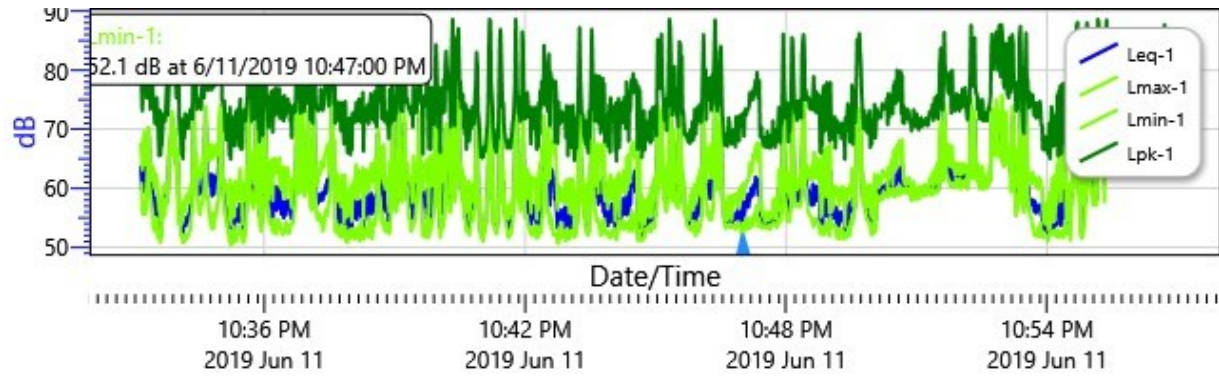
Exceedance Chart

Monitoring Station 3 - Meter 1 - Night time Period: Exceedance Chart



Logged Data Chart

Monitoring Station 3 - Meter 1 - Night time Period: Logged Data Chart



Session Report

6/12/2019

Information Panel

Company Name	"Proyecto Ensueño" - TFS Housing, LLC
Name	Monitoring Station 4 - Meter 2 - Night time Period
Model Type	SoundPro DL
Serial Number	BLL100004
Device Firmware Rev	R.13H
Start Time	6/11/2019 10:32:12 PM
Stop Time	6/11/2019 11:03:35 PM
Run Time	00:31:23
Description	Located at northeast side of the property, near to PR-844

Summary Data Panel

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Rtime	1	00:31:23	Lmin	1	52.5 dB
Lmax	1	80.7 dB	Lpk	1	89.6 dB
Leq	1	66 dB	TWA	1	54.1 dB
ProjectedTWA (1.00:00)	1	70.8 dB	Dose8	1	0.4 %
LDN	1	76 dB	CNEL	1	76 dB
L10	1	70 dB	L90	1	55.2 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST			

Statistics Table

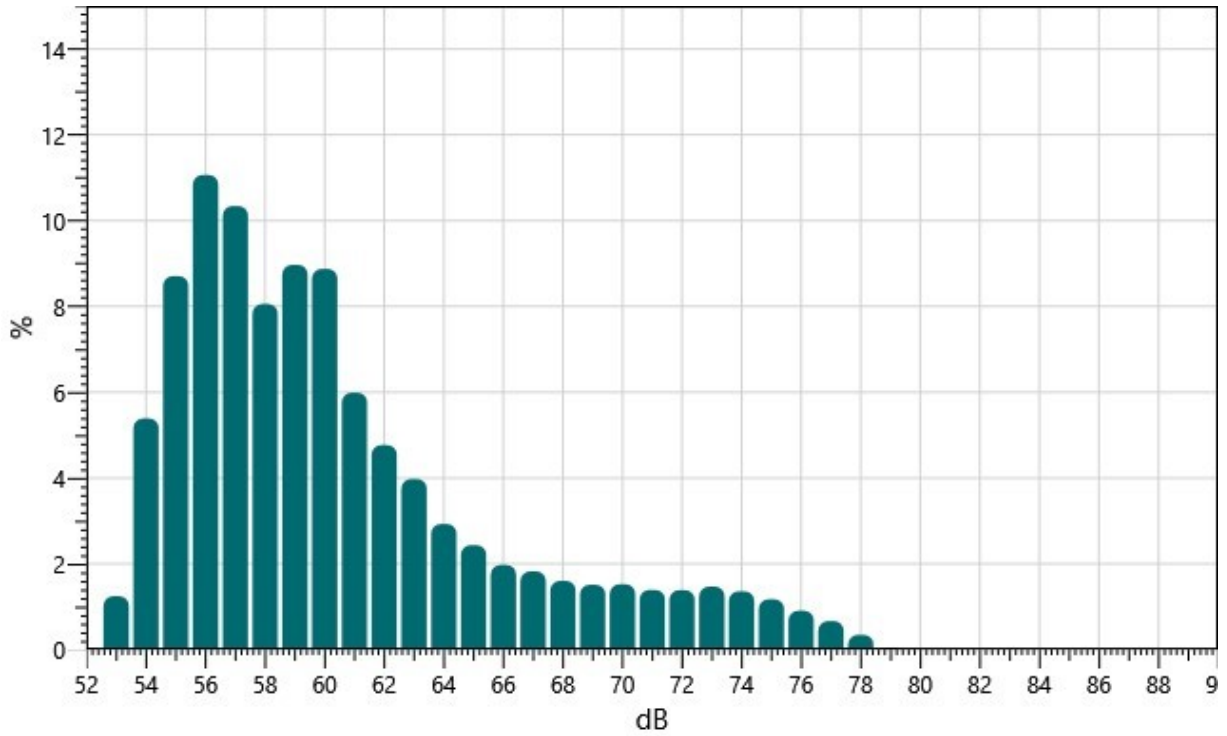
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
52:	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.04
53:	0.03	0.04	0.05	0.10	0.04	0.11	0.15	0.17	0.26	0.30	1.25
54:	0.37	0.39	0.47	0.45	0.49	0.56	0.59	0.63	0.68	0.76	5.39
55:	0.82	0.78	0.84	0.91	0.84	0.86	0.85	0.93	0.94	0.93	8.71
56:	0.95	1.04	1.08	1.23	0.49	1.13	1.31	1.25	1.28	1.29	11.07
57:	1.25	1.24	1.15	1.11	1.00	0.99	0.95	0.91	0.89	0.86	10.34
58:	0.85	0.81	0.83	0.82	0.80	0.79	0.81	0.78	0.79	0.78	8.06
59:	0.79	0.87	0.97	1.00	0.56	0.75	0.99	1.03	1.03	0.97	8.97
60:	1.01	0.91	0.88	0.91	0.93	0.91	0.90	0.83	0.78	0.81	8.87

61:	0.70	0.68	0.64	0.64	0.61	0.59	0.56	0.54	0.55	0.49	5.99
62:	0.49	0.52	0.52	0.56	0.37	0.39	0.51	0.46	0.47	0.48	4.77
63:	0.47	0.42	0.43	0.40	0.42	0.39	0.37	0.35	0.36	0.36	3.98
64:	0.32	0.32	0.32	0.29	0.28	0.29	0.27	0.27	0.29	0.28	2.93
65:	0.28	0.29	0.26	0.31	0.20	0.16	0.27	0.22	0.24	0.20	2.43
66:	0.20	0.20	0.20	0.20	0.21	0.22	0.19	0.19	0.20	0.17	1.97
67:	0.20	0.18	0.21	0.17	0.16	0.18	0.19	0.18	0.19	0.16	1.83
68:	0.17	0.16	0.17	0.19	0.16	0.10	0.17	0.17	0.16	0.16	1.60
69:	0.17	0.17	0.17	0.16	0.14	0.14	0.14	0.13	0.15	0.14	1.51
70:	0.17	0.16	0.15	0.18	0.14	0.15	0.15	0.14	0.15	0.14	1.53
71:	0.16	0.15	0.16	0.14	0.15	0.04	0.17	0.15	0.14	0.13	1.39
72:	0.14	0.13	0.14	0.15	0.13	0.16	0.13	0.13	0.14	0.12	1.39
73:	0.13	0.12	0.15	0.15	0.14	0.14	0.16	0.16	0.16	0.16	1.47
74:	0.16	0.18	0.16	0.15	0.14	0.04	0.12	0.15	0.13	0.13	1.36
75:	0.15	0.13	0.16	0.13	0.11	0.10	0.09	0.09	0.13	0.08	1.17
76:	0.10	0.08	0.10	0.09	0.10	0.08	0.09	0.10	0.09	0.09	0.91
77:	0.07	0.08	0.09	0.07	0.08	0.02	0.07	0.07	0.06	0.05	0.67
78:	0.06	0.05	0.04	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.35
79:	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.05
80:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01



Statistics Chart

Monitoring Station 4 - Meter 2 - Night time Period: Statistics Chart

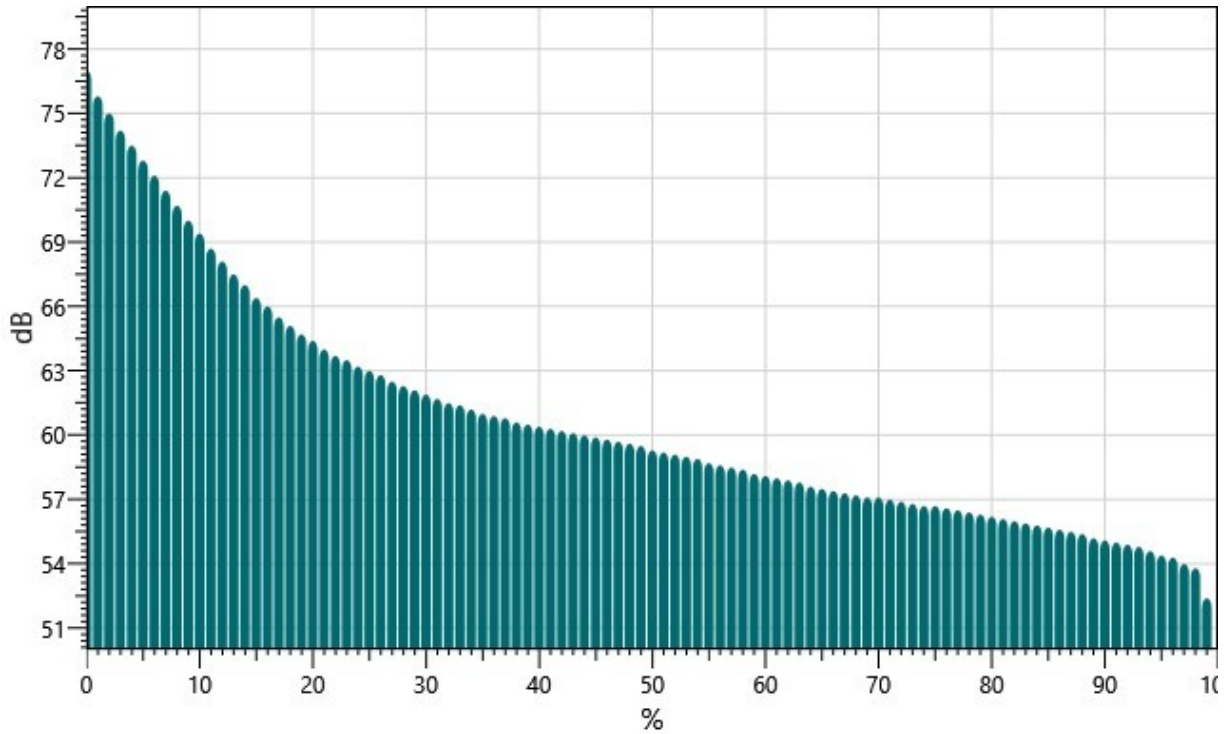


Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		77.0	75.8	75.0	74.2	73.5	72.8	72.1	71.4	70.7
10%:	70.0	69.4	68.7	68.1	67.5	67.0	66.4	66.0	65.5	65.1
20%:	64.7	64.4	64.0	63.7	63.5	63.2	63.0	62.8	62.5	62.3
30%:	62.1	61.9	61.7	61.5	61.4	61.2	61.0	60.9	60.8	60.6
40%:	60.5	60.4	60.3	60.2	60.1	60.0	59.9	59.8	59.7	59.6
50%:	59.5	59.3	59.2	59.1	59.0	58.9	58.7	58.6	58.5	58.4
60%:	58.2	58.1	58.0	57.9	57.8	57.6	57.5	57.4	57.3	57.2
70%:	57.1	57.1	57.0	56.9	56.8	56.7	56.7	56.6	56.5	56.4
80%:	56.3	56.2	56.1	56.0	55.9	55.8	55.7	55.6	55.5	55.4
90%:	55.2	55.1	55.0	54.9	54.8	54.6	54.4	54.3	54.0	53.8
100%:	52.4									

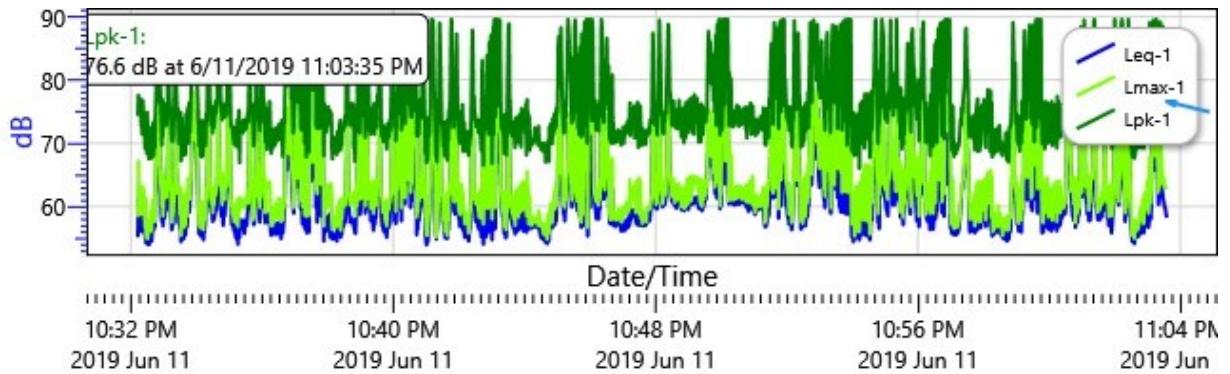
Exceedance Chart

Monitoring Station 4 - Meter 2 - Night time Period: Exceedance Chart



Logged Data Chart

Monitoring Station 4 - Meter 2 - Night time Period: Logged Data Chart



APPENDIX 4: FIELD NOTES



TFS Housing LLC - Proyecto Ensueño

Location: San Juan, P.R.

Item	Description
Project Name:	TFS Housing LLC - Proyecto Ensueño
Project Location:	PR-844 Km 4.0 Cupey Ward San Juan, P.R.
Phone:	Carlos González - 787-296-2323
Contact Person:	Ing. Gabriel Colon
Phone:	787-378-3158
Email:	cgonzalez@cogpr.com
Services:	Environmental Noise Survey - Under HUD Standard

Fecha Medida 11 de junio 2019
 Llegada al site 8:10 pm Casette Dtg. E. Jovic (Cable)
 Nos acompaña el gerente Hura Meléndez

- Se calibró el equipo con el serial number BLLD20003 y dio 114 dA (Metro 1).
- Se calibró el equipo con serial number BLLD00004 dio 114 dA (Metro 2)
- Ubicación de los metros al lado del camino Jaunque cerca de una entrada a camino vecinal.
- Los otros dos puntos se tomaron al reverso, adyacente a la PR-844.

Periodo Durado
 1^{er} punto - Aprox. 8:18 pm
 2^{do} punto - Aprox. 8:18 pm
 3^{er} punto - Aprox. 8:55 pm
 4^{to} punto - Aprox. 8:56 pm

Observaciones:
 - Carretera húmeda
 - Carros con música alta
 - Alto flujo vehicular

Exhibit S



March 14, 2022

Puerto Rico Department of Housing
Puerto Rico Housing Financial Authority
San Juan PR

**Ensueño
89 Units
San Juan PR**

Certificación de Cumplimiento de Ruido

TRASFONDO

El pasado 1 de julio de 2019 se recibió informe de Estudio de Ruido (ER) para el proyecto de referencia. Como resultado final, el promedio de ruido que se encontró fue de 69.7db lo cual excede los 65db requeridos por la reglamentación de HUD CFR 51.104(b). Por lo que se requiere una mitigación de 5db como parte del diseño de proyecto. Queremos destacar que para el ER se colocaron 4 estaciones de muestra y todas estaban en las colindancias con las carreteras aledañas.

CRITERIOS DE DISEÑO PARA REDUCIR EL RUIDO

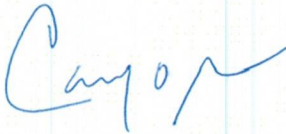
En el diseño, se tomaron dos áreas para reducir el nivel de ruido en 5db según requerido por CFR 51.104(b). El primer factor que se considero es la distancia entre la fuente del ruido y donde se comienzan las estructuras. Para esto se tomo el punto más cerca, que es de 11.77mts. De acuerdo con los parámetros de atenuación del ruido por distancia, el nivel de ruido baja en 6db entre los primeros 10 y 20 metros de distancia desde la fuente de ruido. Es decir que por la distancia entre la fuente de ruido y la primera estructura tenemos 6db de reducción.

El segundo criterio tomado en consideración es el diseño de las viviendas, las mismas serán construidas en las paredes exteriores en concreto reforzado y bloques de concreto, empañetadas por ambas caras y el techo en concreto reforzado y empañetado en el interior. Según el Noise Notebook, Chapter 4 Supplement, Sound Transmission Class Guidance de HUD, el uso de estos materiales tienen un STC de 44 @ 58 el cual reduciría significativamente la transmisión de sonido hacia el interior de la vivienda.

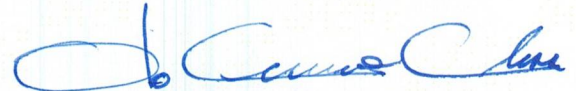
El tercer criterio considerado para atenuar el nivel del sonido es la instalación de ventanas de seguridad en todas las unidades de viviendas. El diseño de las ventanas de seguridad, y la hermética instalación pueden brindar una reducción en el ruido del exterior.

CONCLUSION

Luego de lo anterior expuesto, los aquí firmantes como diseñadores de los planos civiles y de las casas certificamos que con las medidas de diseño incorporadas en el diseño los niveles de ruido proyectados en la operación del proyecto serian menos de 65db, lo cual sería un proyecto aceptable por los CRITERIOS ESTANDARES del CFR 51.103.



Carlos O. Gonzalez
State Engineering PSC



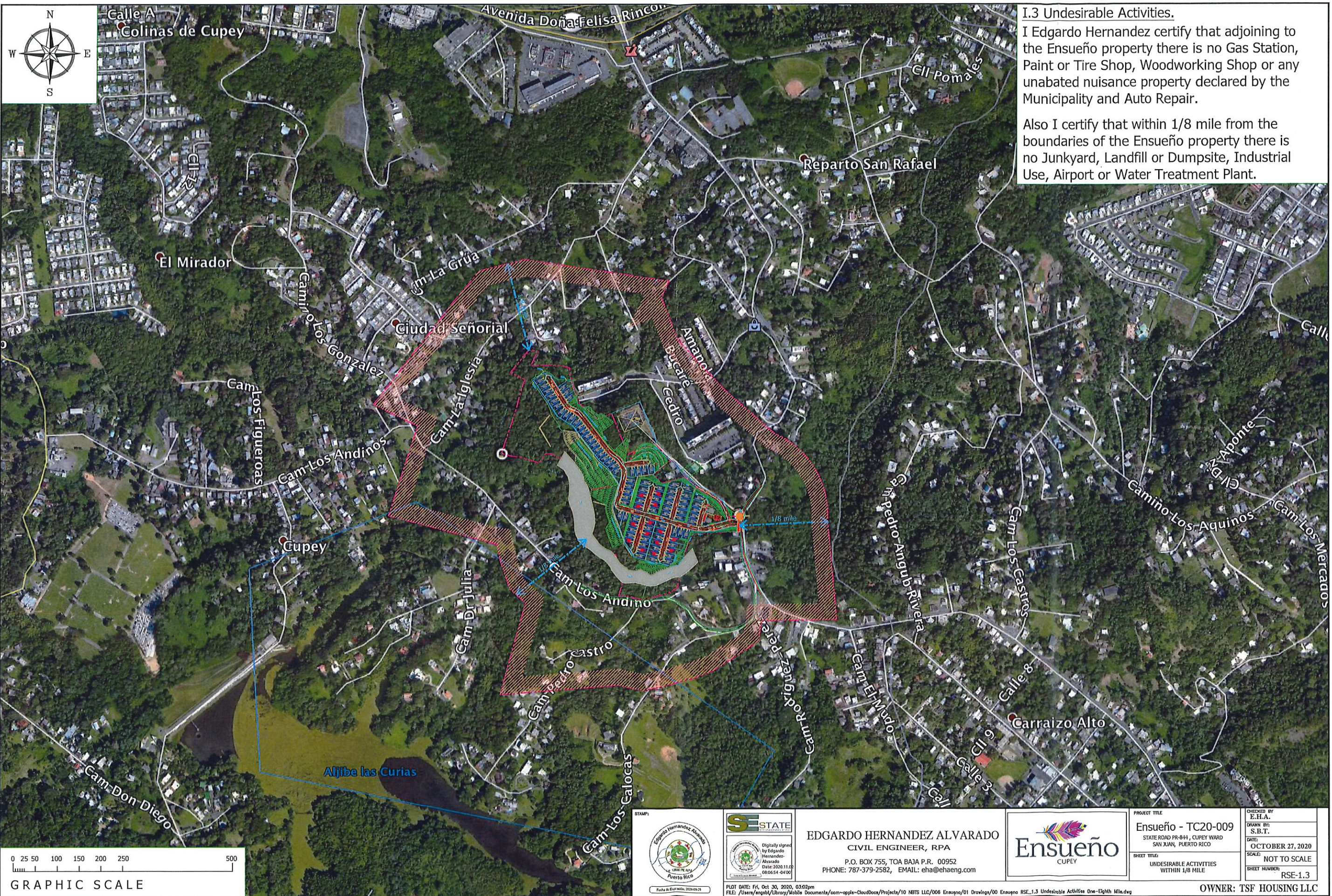
Andrés Cermeño Class
ACC Architects PSC

Exhibit T

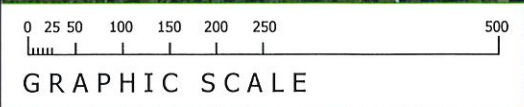
**Ensueño
San Juan, Puerto Rico**

Nearby Hazardous Operations Map

**Not Applicable. Project is not located nearby hazardous or contaminant facilities.
Reference Land Surveyor Map Certification.**



I.3 Undesirable Activities.
 I Edgardo Hernandez certify that adjoining to the Ensueño property there is no Gas Station, Paint or Tire Shop, Woodworking Shop or any unabated nuisance property declared by the Municipality and Auto Repair.
 Also I certify that within 1/8 mile from the boundaries of the Ensueño property there is no Junkyard, Landfill or Dumpsite, Industrial Use, Airport or Water Treatment Plant.



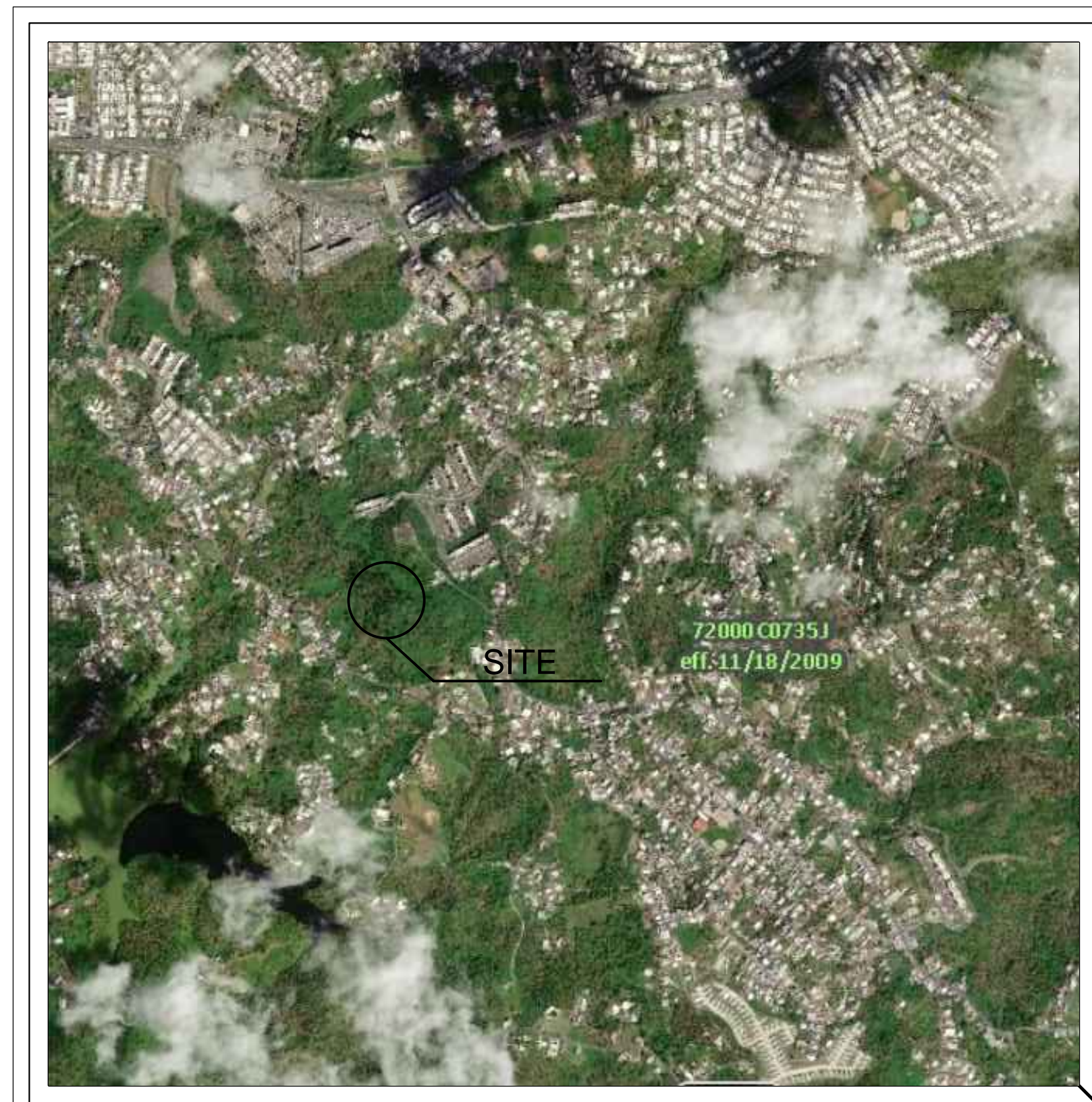
		EDGARDO HERNANDEZ ALVARADO CIVIL ENGINEER, RPA P.O. BOX 755, TOA BAJA P.R. 00952 PHONE: 787-379-2582, EMAIL: eha@ehaeng.com		PROJECT TITLE Ensueño - TC20-009 STATE ROAD PR-844, CUPEY WARD SAN JUAN, PUERTO RICO	CHECKED BY E.H.A. DRAWN BY S.B.T. DATE OCTOBER 27, 2020 SCALE NOT TO SCALE SHEET NUMBER RSE-1.3
				SHEET TITLE UNDESIRABLE ACTIVITIES WITHIN 1/8 MILE	OWNER: TSF HOUSING LLC

PLOT DATE: Fri, Oct 30, 2020, 03:02pm
 FILE: /Users/engsb/Library/Mobile Documents/com-apple-CloudDocs/Projects/10 NBTS LLC/006 Ensueño/01 Drawings/00 Ensueño RSE-1.3 Undesirable Activities One-Eighth Mile.dwg

Exhibit U

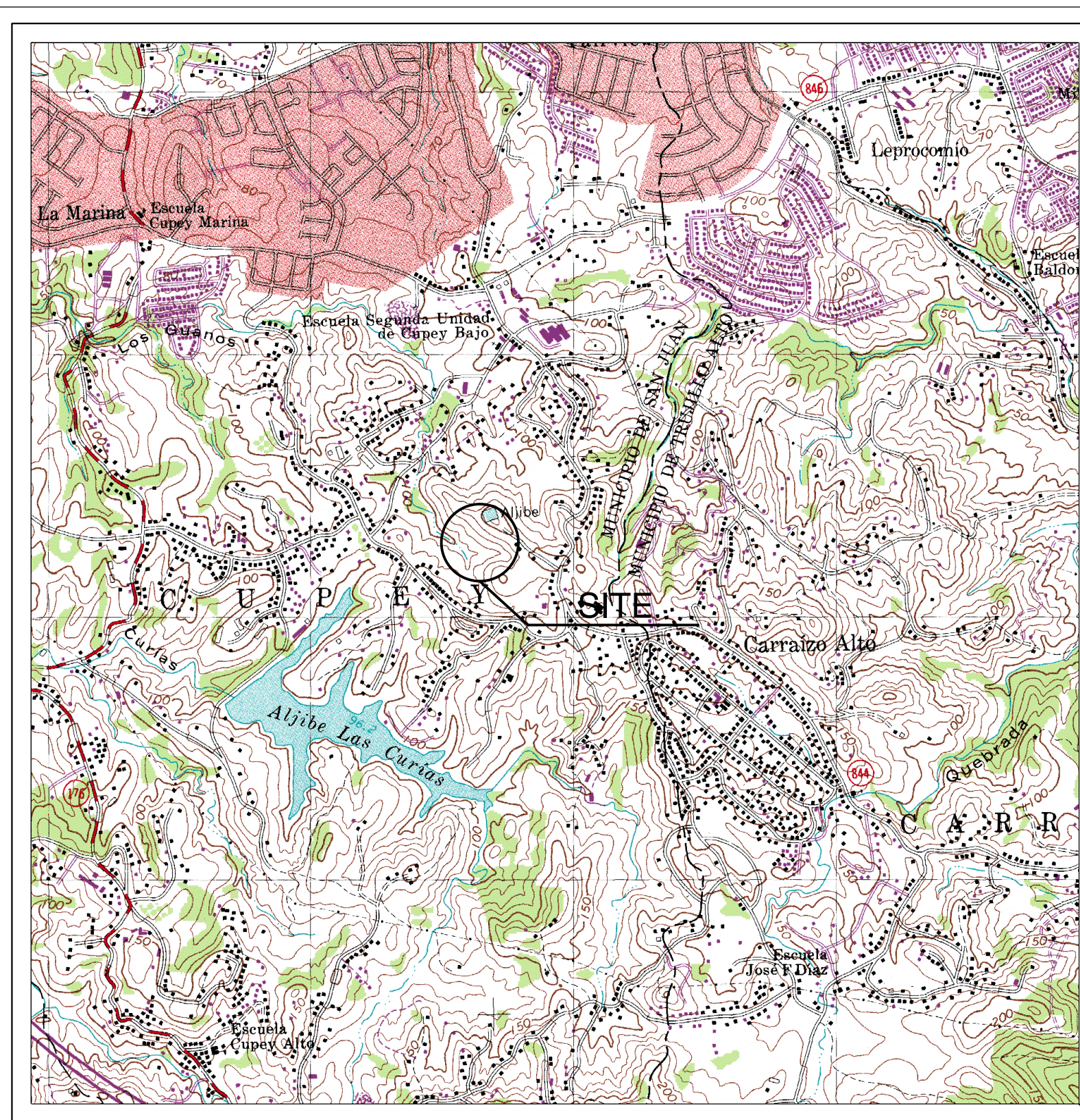
ALTA/NSPS LAND TITLE SURVEY

OF LAND PROPERTY, LOCATED AT ROAD 844, KM- 3.9, CUPEY WARD,
SAN JUAN, PUERTO RICO.



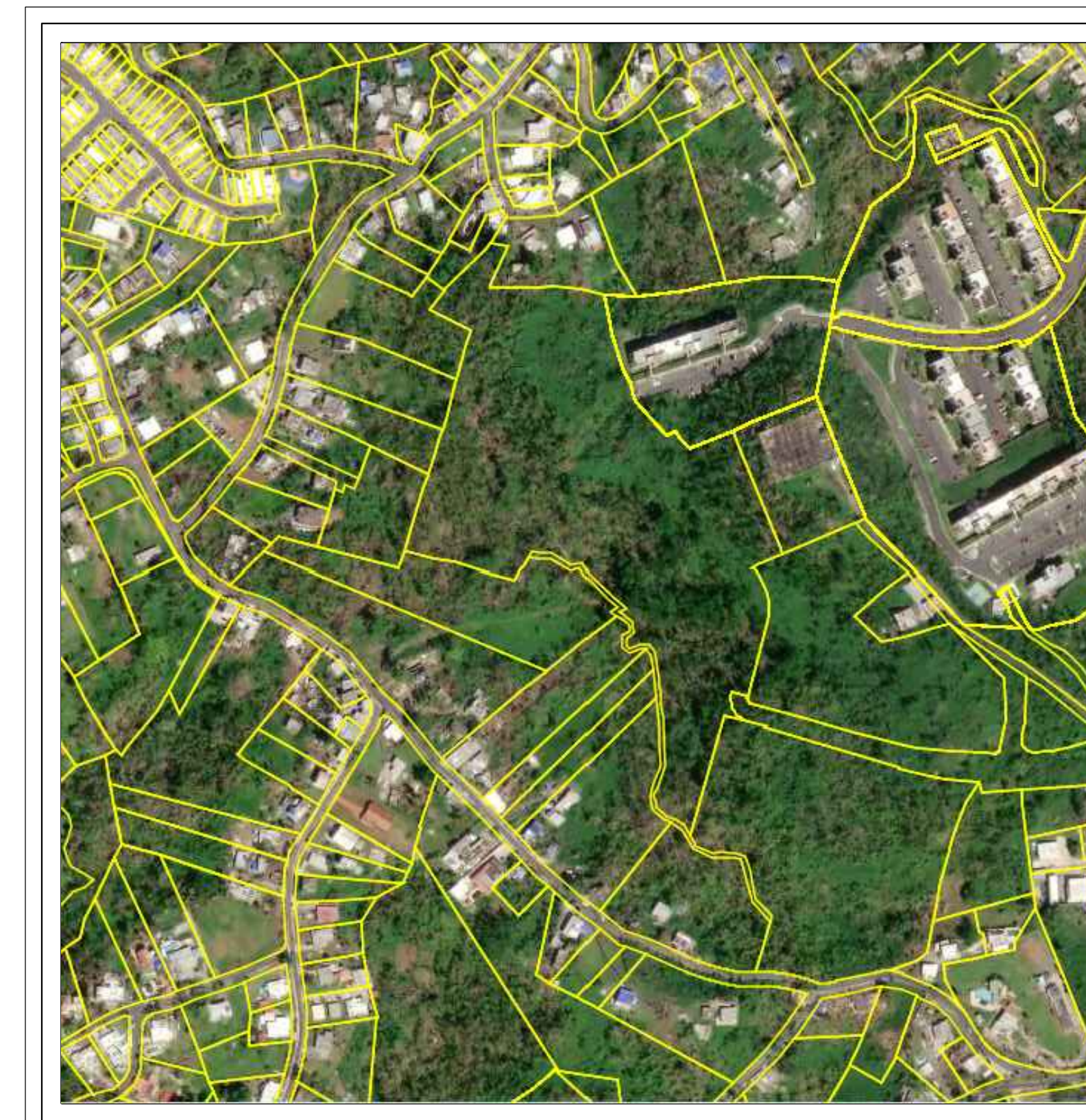
FEMA NATIONAL FIRM PANEL NUM.- 72000C735J
NO TO SCALE

COORDINATES NAD 83
Y = 256,923.6310
X = 241,494.8850



TOPOGRAPHIC QUADRANGLE

SCALE: 1:20,000
COORDINATES NAD 83
Y = 256,923.6310
X = 241,494.8850



AERIAL PHOTOGRAPH (CRIM)
NO TO SCALE

COORDINATES NAD 83
Y = 256,923.6310
X = 241,494.8850

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SURVEY PLAN
3	TABLES AND NOTES

NOTES

1. THE HORIZONTAL CONTROL USED ON THIS PLAN ARE REFERRED TO NAD 83 (REV.2011) STATE PLAN PUERTO RICO/VIRGIN ISLANDS.
2. ALL HORIZONTAL AND VERTICAL MEASUREMENTS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
3. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF THE SURVEY PERFORMED ON NOVEMBER, 2018 BY PEDRO ALICEA, SURVEYOR BACHELOR DEGREE.
4. CAN ONLY BE CONSIDERED AS AN INDICATION OF THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- 5 .QUALITY CONTROL ING. FRANCISCO ORTIZ ARRIAGA
LIC.# 7901 INL Y RPA



CERTIFY CORRECT



REVISIONS:

STATE
ENGINEERING, P.S.C.

State Engineering PSC
442 Cesar Gonzalez St. San Juan P. R. 00918
SCALE 1:1,250
DATE OCT. 2018
SHEET NUM. 1
DRAWN: PEDRO F. ALCEA RIVERA
TOTAL SHEET 3

TABLES AND NOTES

SURVEYORS CERTIFICATION

This to certify to TFS Housing LLC., that this map or plat and the survey on which it is based were made in accordance with the 2018 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 2, 3, 4, 6(a), 6(b), 7(a), 7(b)(2), 8, 9, 10(a) (when applicable), 11, 13, 16, 17, 18, 19 and 20 of Table A thereof.

Pursuant to the Accuracy Standards as adopted by ALTA and NSPS and in effect on the date of this certification, the undersigned further certifies that in my professional opinion, as a land surveyor registered in the Commonwealth of Puerto Rico, the maximum Relative Positional Accuracy resulting from the measurements made on the survey does not exceed the Allowable Relative Positional Accuracy for Measurements Controlling Land Boundaries on ALTA/NSPS Land Title Surveys. The undersigned additionally certifies that (a) this survey was made in the ground under my supervision; (b) if the subject land consists of two or more tracts or parcels having common boundaries, those tracts and parcels are contiguous along the common boundaries; (c) the subject land and each tract or parcel thereof has a tax map designation separate and distinct from that of any other land and the subject land each tract or parcel thereof is a separate, legally subdivided parcel; (d) this survey correctly shows all matters of record (and to the extent they can be located, their location and dimensions) of which I have been advised affecting the subject land according to the legal description of such matters (with instrument, book and page number indicated); (e) except as shown on this survey, no part of the subject land is located in a 100-year Flood Plain or in an identified "flood prone area" as defined pursuant to the Flood Disaster Protection Act of 1973, as amended, as reflected by Flood Insurance Rate Map Panel #72000C735J dated November 18, 2009, which such map panel covers the area in which the subject land is situated and this survey correctly indicates the zone designation of any area as being in the 100-year Flood Plain or "flood prone area"; (f) to the best of my knowledge, this survey shows the relation of and distance of all substantial, visible buildings, sidewalks and other improvements to easements and setback lines; and (h) to the best of my knowledge, except as shown on this survey, neither the subject land nor any tract or parcel thereof serves any adjoining land for drainage, utilities, or ingress or egress.

The field work was completed on October 18, 2018.

Date of Plat or Map: March, 2020

ING. FRANCISCO ORTIZ ARRIAGA
INL Y RPA
License Number 7,901

FLOOD ZONE

The flood zone classification of subject property is Zone X, area determined to be outside the 0.2% annual chance floodplain.
Flood Insurance Rate Map, Panel number 72000C735J effective Date: November 17, 2009 At the time of this survey there was no observable evidence of wetlands on the parcel.

ENCROACHMENTS

At the time of this survey there was no observable evidence of any encroachment between the Subject's property and neighbor's properties.

REGISTRY INFORMATION					
	"FOLIO"	"TOMO"	"FINCA"	SQUARE METER	CUERDAS
LOT E	5	851	23,598	54,023.1917	13.7445
LOT F	9	851	23,599	20,432.8085	5.1987
LOT G	13	851	23,600	8,494.4899	2.1612
LOT H	17	851	23,601	9,537.2365	2.4265
REMNANT LOT	113	727	20,610	28,032.1720	7.1322
TOTAL LOTS				120,519.8936	30.6631

TOTAL LOTS AREA							
Course	Bearing	Distance	PT#	Northing	Easting	Description	
1-2	N 33°58'25" W	10.7789	2	256880.0987	241712.7786	TO ESTABLISH	
2-3	N 27°47'38" W	17.7653	3	256904.6934	241698.4714	TO ESTABLISH	
3-4	N 28°56'32" W	21.2547	4	256923.2935	241688.1857	TO ESTABLISH	
4-5	N 48°50'44" W	17.6819	5	256934.9297	241674.8723	TO ESTABLISH	
5-6	N 73°54'51" W	28.4769	6	256942.8201	241647.5103	TO ESTABLISH	
6-7	N 88°51'58" W	28.2224	7	256943.3786	241619.2935	TO ESTABLISH	
7-9	S 46°28'01" W	30.6740	9	256922.2511	241597.0555	RADIO	
9-8	N 10°14'56" W	30.6740	8	256922.2511	241597.0555	RADIO	
CURVE A=21.9621 DELTA=57°53'03" T=12.0214 EXT=3.1025							
8-11	N 71°17'08" W	21.0400	11	256959.1877	241571.6664	TO ESTABLISH	
RADIUS POINT 21.7989 10 256973.8360 241587.7290 RADIO							
11-12	N 42°04'48" W	30.4785	12	256981.8091	241551.2407	TO ESTABLISH	
12-13	N 45°57'46" W	52.6224	13	257018.3883	241513.4111	TO ESTABLISH	
13-14	S 66°33'34" W	5.4129	14	257016.2951	241508.4449	TO ESTABLISH	
14-15	S 67°25'24" W	61.3981	15	256992.6633	241451.7519	TO ESTABLISH	
15-16	N 22°27'18" W	86.2355	16	257072.3604	241418.8135	TO ESTABLISH	
16-17	N 21°34'41" W	13.7429	17	257085.1402	241413.7593	TO ESTABLISH	
17-18	S 67°59'06" W	33.2073	18	257072.6924	241382.9733	TO ESTABLISH	
18-19	S 54°15'48" W	1.9578	19	257071.5489	241381.3841	TO ESTABLISH	
19-20	N 48°19'59" W	11.4267	20	257079.1454	241372.8481	TO ESTABLISH	
20-21	N 23°19'58" W	5.9132	21	257084.5751	241370.5060	TO ESTABLISH	
21-22	S 66°40'02" W	5.4292	22	257082.4247	241365.5208	TO ESTABLISH	
22-23	S 79°28'26" W	2.2424	23	257082.0151	241363.3162	TO ESTABLISH	
23-24	N 43°15'33" W	33.1957	24	257106.1902	241340.5671	TO ESTABLISH	
24-25	N 18°29'43" W	18.9390	25	257124.1510	241334.5591	TO ESTABLISH	
25-26	N 30°28'47" W	10.2968	26	257133.0249	241329.3362	TO ESTABLISH	
26-27	N 17°03'26" W	26.8760	27	257158.7187	241321.4528	TO ESTABLISH	
27-28	N 09°57'06" W	30.4041	28	257188.6653	241316.1984	TO ESTABLISH	
28-29	N 75°59'13" W	17.3944	29	257192.8772	241299.3217	TO ESTABLISH	
29-30	N 85°45'35" W	21.8177	30	257194.4904	241277.5637	TO ESTABLISH	
30-31	S 87°32'08" W	10.2158	31	257194.0511	241267.3573	TO ESTABLISH	
31-32	N 89°35'48" W	14.6491	32	257194.1542	241252.7086	TO ESTABLISH	
32-33	S 89°49'59" W	18.6867	33	257194.0998	241234.0219	TO ESTABLISH	
33-34	N 83°13'17" W	4.0811	34	257194.5815	241229.9694	TO ESTABLISH	
34-35	N 09°25'19" W	1.2818	35	257195.8459	241229.7596	TO ESTABLISH	
35-36	N 25°41'54" E	33.3215	36	257225.8716	241244.2089	TO ESTABLISH	
36-37	N 81°26'55" W	19.3092	37	257228.7428	241225.1144	TO ESTABLISH	
37-38	S 76°09'38" W	1.1379	38	257228.4706	241224.0095	TO ESTABLISH	
38-39	S 40°06'17" W	7.9352	39	257222.4013	241218.8977	TO ESTABLISH	
39-40	S 38°10'17" W	37.6587	40	257192.7953	241195.6241	TO ESTABLISH	
40-41	S 38°00'56" W	19.5672	41	257177.3794	241183.5731	TO ESTABLISH	
41-42	S 63°48'53" E	35.7843	42	257181.5975	241215.8670	TO ESTABLISH	
42-43	S 20°34'34" W	13.0682	43	257149.3630	241211.0741	TO ESTABLISH	
43-44	S 15°59'36" W	14.2866	44	257135.6294	241207.1378	TO ESTABLISH	
44-45	S 15°13'01" W	14.9515	45	257121.2021	241203.2134	TO ESTABLISH	
45-46	S 14°41'50" W	24.8278	46	257097.1867	241196.9143	TO ESTABLISH	
46-47	S 17°48'36" W	16.6990	47	257085.2880	241191.8067	TO ESTABLISH	
47-48	S 17°38'47" W	16.2354	48	257085.8166	241186.8851	TO ESTABLISH	
48-49	S 17°22'48" W	14.8518	49	257051.6429	241182.4488	TO ESTABLISH	
49-50	S 20°23'01" W	8.4442	50	257043.7274	241179.5077	TO ESTABLISH	
50-51	S 17°50'37" W	27.9690	51	257017.1039	241170.9374	TO ESTABLISH	
51-52	S 17°47'37" W	23.9479	52	256994.3016	241163.6192	TO ESTABLISH	
52-53	S 75°16'01" E	24.1871	53	256988.1504	241167.0110	TO ESTABLISH	
53-54	S 85°04'23" E	15.1218	54	256986.7658	241203.0732	TO ESTABLISH	
54-55	S 72°55'41" E	29.6805	55	256978.0524	241231.4459	TO ESTABLISH	
55-56	S 73°57'07" E	18.0433	56	256973.0644	241248.7860	TO ESTABLISH	
56-57	N 30°53'20" E	13.5186	57	256984.6656	241255.7261	TO ESTABLISH	
57-58	N 34°06'38" E	11.1645	58	256993.9093	241261.9871	TO ESTABLISH	
58-59	S 87°52'13" E	14.8383	59	256993.3579	241276.8151	TO ESTABLISH	
59-60	S 58°16'32" E	12.8925	60	256986.6837	241287.6112	TO ESTABLISH	
60-61	S 57°21'05" E	4.9300	61	256984.0240	241291.7623	TO ESTABLISH	
61-62	N 78°45'13" E	8.3451	62	256985.6516	241299.9471	TO ESTABLISH	

62-63	S 35°12'33" E	9.0876	63	256978.2265	241305.1867	TO ESTABLISH
63-64	S 46°09'18" E	26.0531	64	256960.1794	241323.9766	TO ESTABLISH
64-65	S 46°38'51" E	12.2520	65	256951.7685	241332.8856	TO ESTABLISH
65-66	S 62°01'09" W	6.1101	66	256948.9018	241327.4897	TO ESTABLISH
66-67	S 55°18'53" E	12.6298	67	256941.7146	241337.8751	TO ESTABLISH
67-68	S 06°02'47" E	8.1750	68	256933.5850	241338.7362	TO ESTABLISH
68-69	S 50°34'05" W	7.1963	69	256929.0142	241333.1779	TO ESTABLISH
69-70	S 01°54'00" E	5.6549	70	256923.3624	241333.3654	TO ESTABLISH
70-71	S 52°32'20" E	2.7377	71	256921.6973	241335.5384	TO ESTABLISH
71-72	N 64°34'19" E	8.2385	72	256925.2347	241342.9788	TO ESTABLISH
72-73	S 86°44'32" E	7.2595	73	256924.8222	241350.2265	TO ESTABLISH
73-74	S 38°10'03" E	7.6711	74	256918.7911	241354.9670	TO ESTABLISH
74-75	S 08°04'36" E	26.2726	75	256892.7791	241358.6582	TO ESTABLISH
75-76	S 02°19'42" E	12.6442	76	256880.1454	241359.1719	TO ESTABLISH
76-77	S 09°49'32" E	11.8748	77	256868.4448	241361.1983	TO ESTABLISH
77-78	S 02°13'48" E	36.0157	78	256832.4563	241362.5998	TO ESTABLISH
78-79	S 20°43'02" W	23.8876	79	256810.1134	241354.1494	TO ESTABLISH
79-80	S 12°41'19" E	5.9437	80	256804.3148	241355.4549	TO ESTABLISH
80-81	S 18°47'28" E	2.5067	81	256801.9417	241356.2824	TO ESTABLISH
81-82	S 47°43'22" E	10.2361	82	256795.0557	241363.8361	TO ESTABLISH
82-83	S 69°44'53" E	6.8534	83	256792.6834	241370.2658	TO ESTABLISH
83-84	S 54°52'00" E	8.8681	84	256787.5800	241377.5182	TO ESTABLISH
84-85	S 29°02'12" E	15.3251	85	256774.1812	241384.9566	TO ESTABLISH
85-86	S 29°02'12" E	1.5984	86	256772.7836	241385.7324	TO ESTABLISH
86-87	S 66°26'16" E	14.6993	87	256766.9077	241399.2062	TO ESTABLISH
87-88	N 84°59'42" E	6.6254	88	256767.4857	241405.8063	TO ESTABLISH
88-89	S 87°55'51" E	9.9762	89	256767.1255	241415.7760	TO ESTABLISH
89-90	S 75°16'59" E	8.2922	90	256765.0189	241423.7961	TO ESTABLISH
90-91	S 16°00'03" E	10.3213	91	256755.0975	241426.6412	TO ESTABLISH
91-92	S 12°33'01" E	24.1868	92	256731.4886	241431.8969	TO ESTABLISH
92-93	S 44°17'01" E	17.1471	93	256719.2132	241443.8692	TO ESTABLISH
93-94	S 16°12'30" W	25.4894	94	256694.7370	241436.7544	TO ESTABLISH
94-95	S 15°20'03" W	23.7657	95	256671.8173	241430.4696	TO ESTABLISH
95-96	N 85°29'56" E	9.1027	96	256672.5316	241439.5442	TO ESTABLISH
96-97	S 84°45'29" E	10.0183	97	256671.6163	241449.5206	TO ESTABLISH
97-98	S 75°21'28" E	17.3286	98	256667.2300	241466.2864	TO ESTABLISH
98-99	S 77°59'48" E	18.9809	99	256663.2886	241484.8523	TO ESTABLISH
99-100	N 77°11'48" E	15.9141	100	256666.8152	241500.3707	TO ESTABLISH
100-101	N 75°00'47" E	27.6923	101	256673.9765	241527.1210	TO ESTABLISH
101-102	N 75°45'07" E	13.6912	102	256677.3462	241540.3910	TO ESTABLISH
102-103	N 67°35'13" E	12.5772	103	256682.1416	241552.0181	TO ESTABLISH
103-104	N 57°03'07" E	6.3640	104	256685.6028	241557.3585	TO ESTABLISH
104-105	N 57°16'13" E	8.3504	105	256690.1177	241564.3832	TO ESTABLISH
105-106	N 09°16'45" E	42.9617	106	256732.5172	241571.3105	TO ESTABLISH
106-107	N 15°07'39" E	8.7295	107	256740.9442	241573.5886	TO ESTABLISH
107						

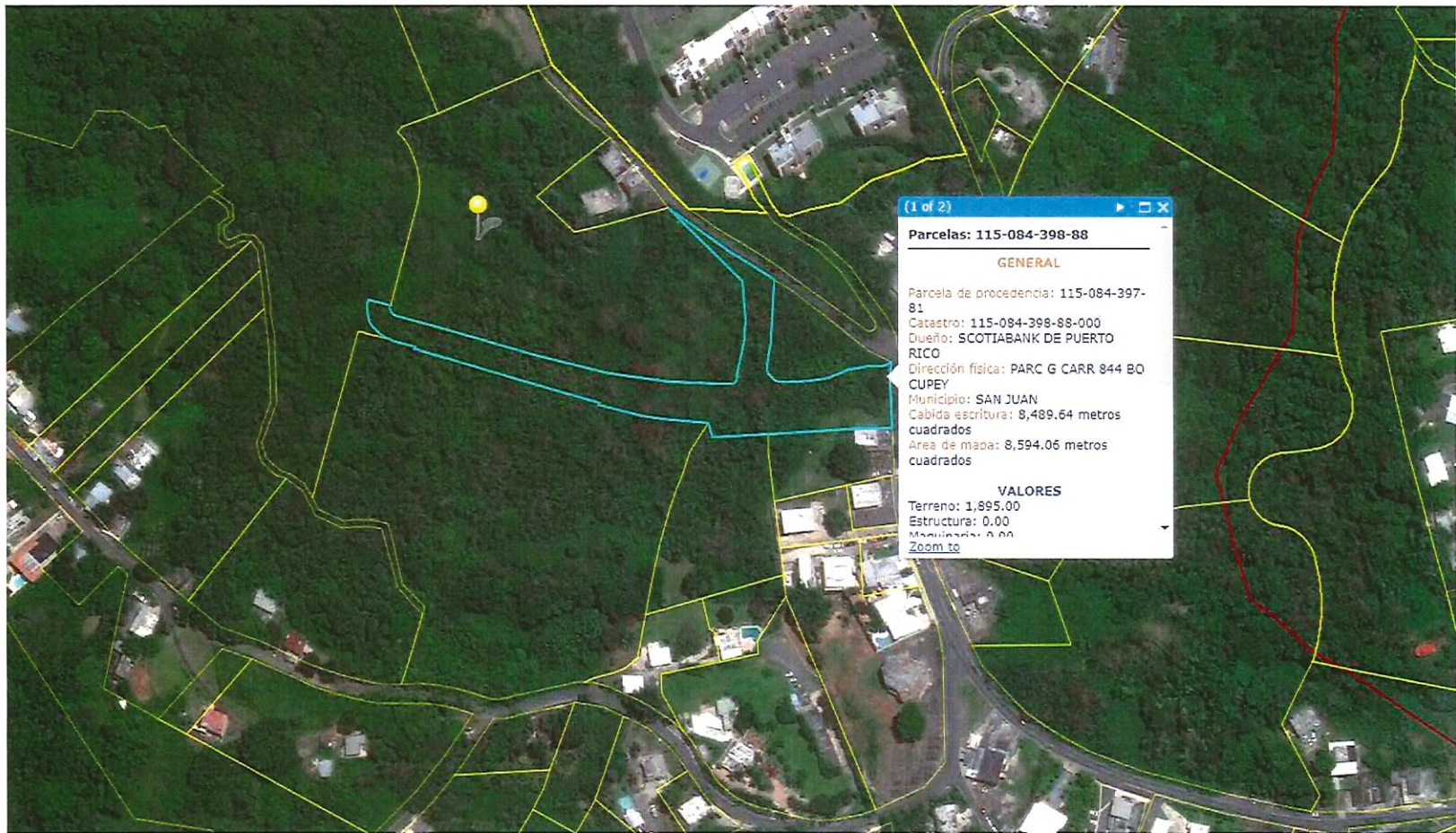
Exhibit V

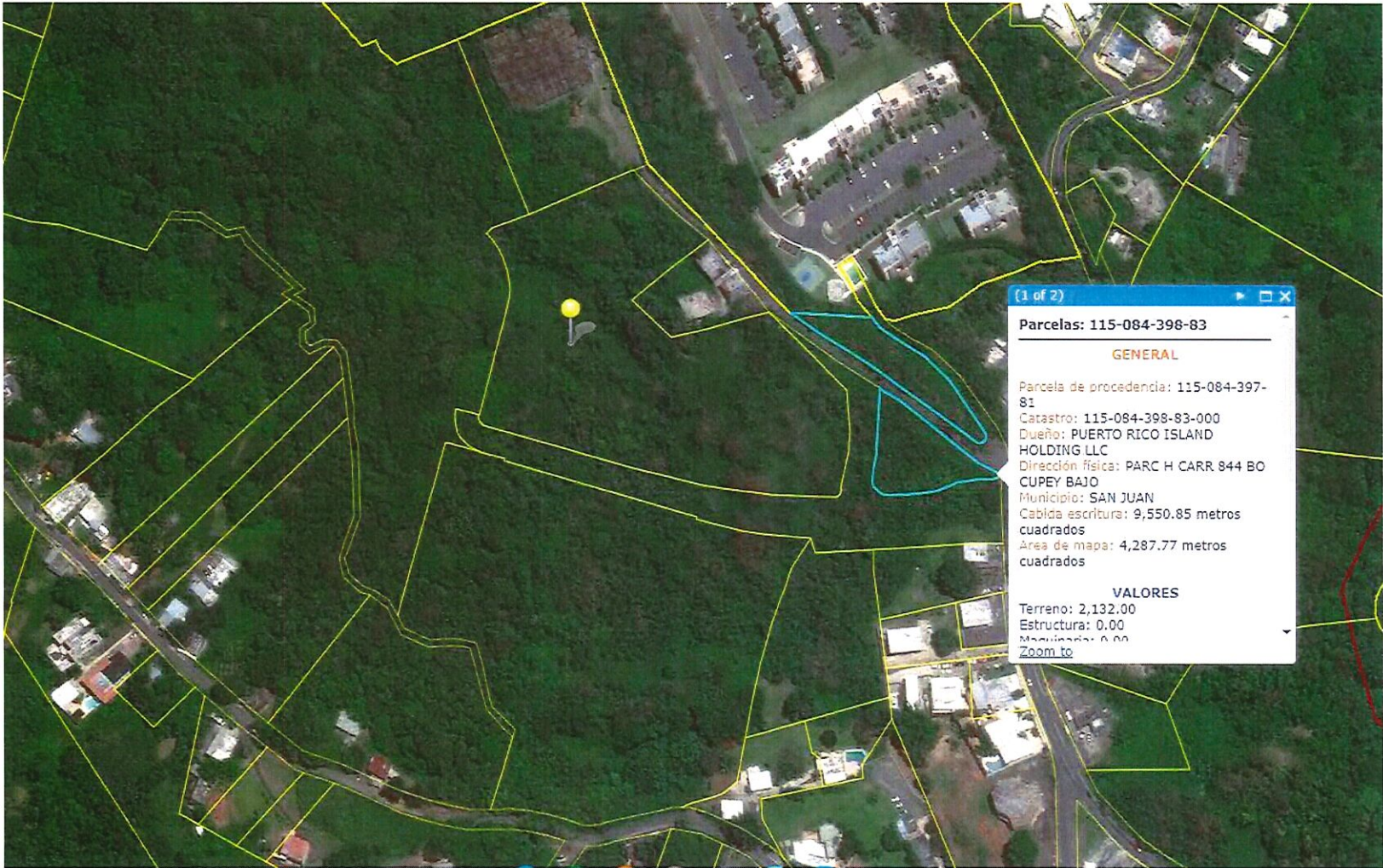
ENSUEÑO, CUPEY











(1 of 2)

Parcelas: 115-084-398-83

GENERAL

Parcela de procedencia: 115-084-397-81
Catastro: 115-084-398-83-000
Dueño: PUERTO RICO ISLAND HOLDING LLC
Dirección física: PARC H CARR 844 BO CUPEY BAJO
Municipio: SAN JUAN
Cabida escritura: 9,550.85 metros cuadrados
Área de mapa: 4,287.77 metros cuadrados

VALORES

Terreno: 2,132.00
Estructura: 0.00
Muebles: 0.00
[Zoom to](#)

Exhibit W

Measure the distance between multiple points on the ground

Length: **9,923.51 Meters**

Show Elevation Profile

Mouse Navigation

Save Clear

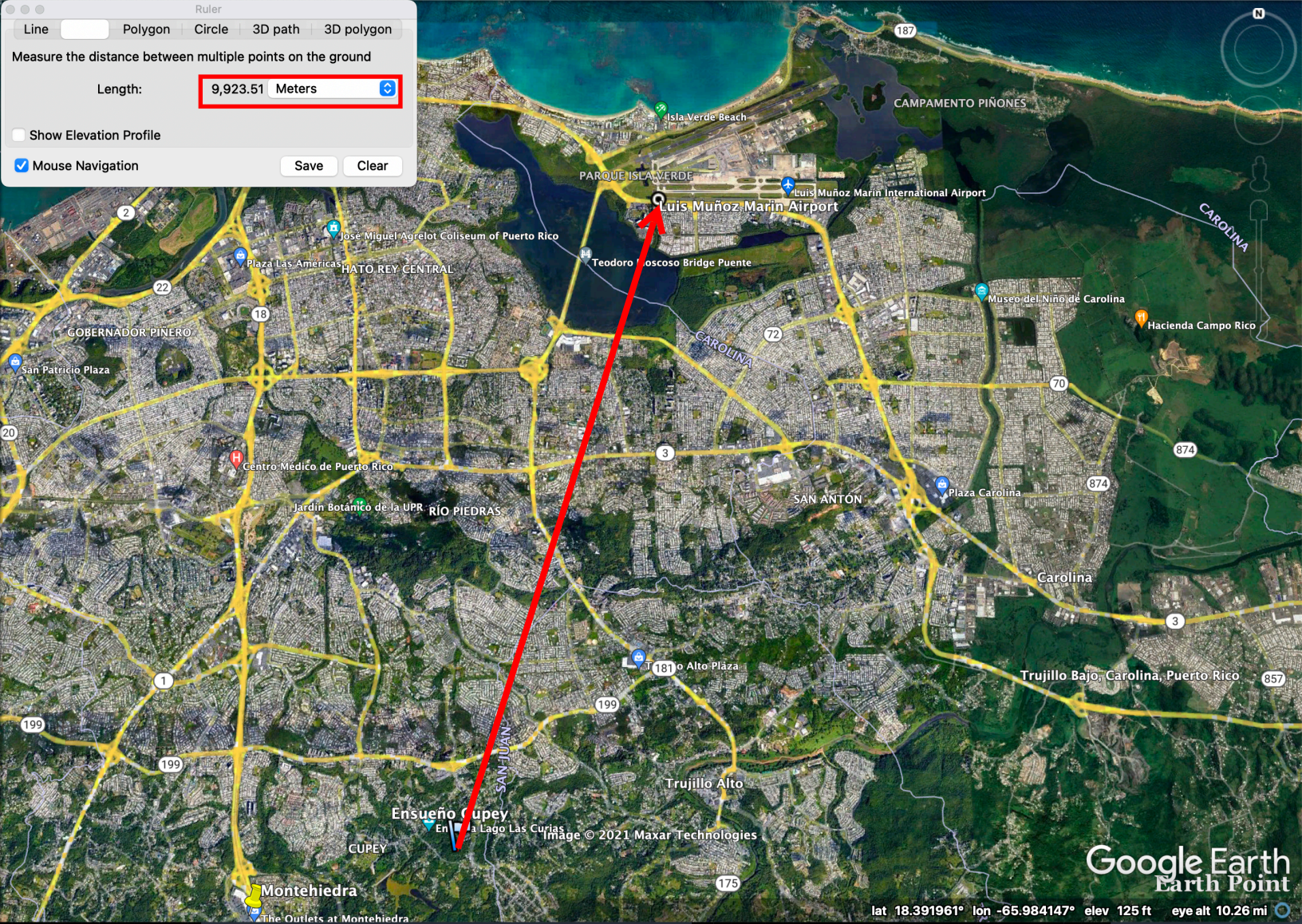
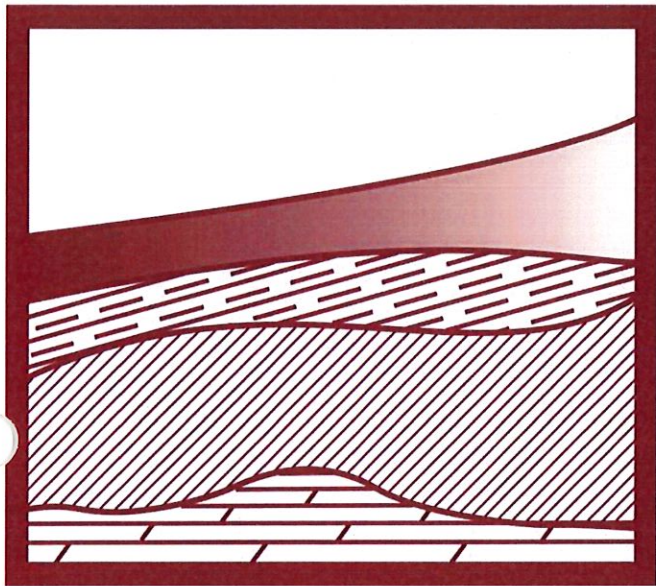


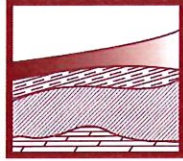
Exhibit X



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CONSULTING GEOTECHNICAL ENGINEERS

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San Juan, PR 00910-2662

www.despiau.net




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Consulting Geotechnical Engineers

Report for the Geotechnical Investigation and Subsurface Exploratory
Services for the Proposed Ensueño Residential Development at
Cupey Ward of the Municipality of San Juan, Puerto Rico
Reference No. DA/18D3803

March 22, 2019

Prepared for:

TFS Housing, LLC.
PO Box 360953
San Juan, PR. 00936-0953



Jose R. Despiau, P.E., Lic. #17343

Geotechnical Engineer, Despiau Associates – Consulting Geotechnical Engineers.





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DE PUERTO RICO

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ESTAMPILLA DIGITAL ESPECIAL (EDE)

Ing. Jose R. Despiou Ramirez, PE



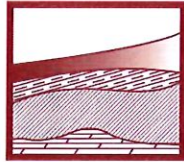
SELLO PROFESIONAL

Práctica de: Ingeniería
Licencia: 17343
Renglón: Servicio Profesional
Descripción del Trabajo: Asesoramiento y Consultoría en Ingeniería
Fecha de Emisión: 2019-03-22
Monto Emitido: \$35
Número de Serie: 6992-5442-9282-7987
Número de Caso: DA/18D3803
Proyecto / Unidad: Ensueño Residential Development
Rol del Profesional: Consultor

Certificación:

El profesional certifica con la emisión de la estampilla digital especial del Colegio de Ingenieros y Agrimensores de Puerto Rico el haber cumplido con las disposiciones de la Sección 11 de la Ley 319 del 15 de mayo de 1938, según enmendada.

La colocación del sello profesional constituye la cancelación de la estampilla digital especial



DESPIAU ASSOCIATES
Consulting Geotechnical Engineers

March 22, 2019

TFS Housing, LLC

PO Box 360953

San Juan, PR. 00936-0953

Tel 787 296-2323; Mobile 787 360-2444

Attn: Mr. Carlos O. González, PE

Subject: Report for the Geotechnical Engineering and Subsurface Exploratory Services for the Proposed Ensueño Residential Development at Cupey Ward of the Municipality of San Juan, Puerto Rico.
Reference No. DA/18D3803

Gentlemen:

As requested, we have completed the Subsoil Exploration and Geotechnical Engineering Analyses for the Proposed Ensueño Residential Development at Cupey Ward of the Municipality of San Juan, Puerto Rico.

The work was undertaken at the request of Mr. Carlos González, PE, on behalf of TFS Housing, LLC., sponsor of the project. The work was made in accordance to the Proposal No. 12-02'18R for the subsurface exploration dated, December 7, 2018. The work was commenced after final execution of the Professional Service Contract was received on December 11, 2018.

This report presents the results of the field exploratory drilling, laboratory tests performed on secured soil samples, engineering analyses, summary of findings and foundation recommendations for the proposed residential development and required Site improvements. The original and one copy of the Geotechnical Report are being submitted with this transmittal letter. It has been a pleasure to have been of your assistance in this project.

It has been a pleasure to have been of your assistance in this project.

Respectfully Submitted,

DESPIAU ASSOCIATES


Jose R. Despiau, PE.
Geotechnical Engineer

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Appendix (A) – Figures

1. US Geological Survey Service Topographical plan at a scale 1:20,000
 - 1A. Geological Map
2. Boring Location Plan
3. General Drainage Pattern Illustration

Appendix (1) - Boring Logs

Appendix (2) - Earthwork Specifications

Appendix (3) - Special Laboratory Tests

I. INTRODUCTION

This report covers the Subsoil Exploration and Geotechnical Engineering Services for the Proposed Ensueño Residential Development at Cupey Ward of the Municipality of San Juan, Puerto Rico.

The work was undertaken at the request of Mr. Carlos González, PE, on behalf of TFS Housing, LLC., sponsor of the project. The work was made in accordance to the Proposal No. 12-02-18R for the subsurface exploration dated, December 7, 2018. The work was commenced after final execution of the Professional Service Contract was received on December 11, 2018.

This report presents the results of the field exploratory drilling, laboratory tests on secured soil samples, engineering analyses, summary of findings and recommendations for the Site Engineering and foundation design for the Proposed Residential Development. This report has been prepared for the exclusive use of the Owner and the A/E Consultant Firm involved in the preparation of the site engineering and foundation design plans and specifications for the proposed single-family residential structures and required earthwork of the project.

The selected boring locations were used to establish the profile data at the specific explored locations for the present geotechnical engineering review. At this stage, the preliminary site civil engineering plans were submitted for the present review, however these may have to be modified to include the herein geotechnical recommendations. Moreover, no specific site development structure (i.e. retaining structures, etc...) have been identified, therefore these shall be designed following the herein recommendations. Also, the preliminary grading plans submitted were used for the herein geotechnical assessment and recommendations.

II. SITE AND PROJECT DESCRIPTION

The Proposed Ensueño Residential Development Site is located at Cupey Ward of the Municipality of San Juan, Puerto Rico west of State Road PR-844, and southwest of its intersection of Camino Los Andino, southern limit of the tract of land. To the north lies an existing PRASA Water tank and facilities. The Camino Iglesia, which intersects Camino Los Andino becomes the western property limit. Also, part of Alturas del Bosque Development borders the

proposed development to its northwestern property line. Enclosed is a portion of the US Geological Survey Service Topographical plan at a scale 1:20,000, Figure 1 in Appendix A.

Historical Site evaluation revealed a previous earthwork was performed (between 2002-2005) at the Site. It was confirmed during the present subsoil exploration deep filled sectors were made as deep as 50.0 ft. in depth. However, most of the previously deposited unsuitable fill will be removed to cope with the proposed grading elevation of the project, except at the vicinity of Boring # 11, where the proposed grading only considers a cut of 4.50 meters and the disclosed deep fill extent to 50.0 ft (15.24 mts.) in depth.

The most prominent topographic is an intermittent gully streams crossing the site, with a near north-south and east-west alignment toward Los Guanos Creek, which receives the storm waterflows outside the project lands. The site topography shows at the highland topographic features detail in the plans submitted with several hill-tops and ridge lines. The main intermittent gully stream is found at the distance of about 150.0 mts., west from the intersection with Camino Tanque which gives access to the existing PRASA tank. Also, surface runoff from the hill-tops and ridges at the highlands sectors (adjacent to State Road PR-844) drain towards the lowland sectors to the south-west and north-west of the property land to be developed.

Figure No. 3 of Appendix A illustrate the major drainage pattern identified at the site. Special considerations shall be put in place during the Site Design to allow the natural drainage patterns through natural gullies of the Site. For such purposes underground, French Drains (of sufficient capacity to be determined by the project's hydrologist), shall be installed during the earthwork operation and prior to the placement of any fill section, to maintain the natural underground drainage patterns beneath the proposed residential lots. Neglecting this important aspect of the Site design may lead to underground soil raveling causing detrimental effects to the residential dwelling units. Storm water emanating from neighboring developed areas and new storm water flows, may reach the lowland areas of the presently proposed development. Thus, its impact shall be considered in the Site Engineering Design and proposed storm drainage system of the project.

Also, field observation revealed continuous waterflows from the upper neighboring lots (i.e. Alturas del Bosque and PRASA facilities), near Borings # 20, 21 and 25. Since there is no way to predict if or when their storm sewer system/drainage facilities or tank structure will be redirected/diverted (fixed) of possible future deterioration of their systems a perimetral drain (i.e.

French Drain) along the toe of the presently proposed northern sloping ground to intercept/divert surface and subsurface water runoff shall be provided and/or connected to the project's storm sewer system.

Based on available topographical plan submitted the prominent features at the Land Property were considered for the present boring program distribution. The proposed Residential Housing Development sectors were covered by [Borings No. 1 through 28 and four Test Pits], distributed considering the existing topography at lowland, highland, intermediate foot slopes and ridgetops within the project lands. The following table summarized the proposed Earthwork (Cut/Fill), field observations and additional comments in regard to the as found conditions.

SUMMARY OF EARTHWORK, FIELD OBSERVATION AND COMMENTS

Boring No.	Approximate Existing grade (mts.)	Proposed Grade Elevation (mts.)	Cut (-) / Fill (+) (mts.)	Field Observations & Comments
1	140.00	145.10	5.10	Weathered rock at 15 ft.
2	145.15	145.26	0.20	Residual and weathered material at 6 ft. – Large cobble & boulders at surface
3	145.50	145.25	(0.30)	-
4	147.50	151.00	3.50*	6 ft. of fill- REMOVE*
5	155.00	150.00	(5.00)	Weathered rock at 5 ft. – Lots of debris on the area (i.e. Car tires) – REMOVE*
6	157.00	149.00	(8.00)*	Deep Unsuitable Fill up to 33 ft. – REMOVE*
7	101.50	145.00	(16.50)*	Deep Unsuitable Fill up to 50 ft. – REMOVE* (Few to many roots within the matrix)
8	142.50	144.50	2.00	Large boulders area.
9	141.00	139.50	(1.50)	Rocky area with sand – Material Suitable for fill (A-2-4 AASHTO Type)
10	139.00	142.00	3.00	Residual Soil at 8 ft.
11	151.00	146.50	(4.50)*	Deep Unsuitable Fill up to 50 ft. – REMOVE*
12	157.00	147.00	(10.00)	-
13	139.00	142.50	3.50	Loose Fill up to 4.0 ft. – REMOVE
14	130.50	143.00	12.50	Relatively Flat Area – Medium Dense
15	140.00	140.40	0.50	Relatively Flat Area
16	133.00	138.00	5.00	Relatively Flat Area – Very Dense from 3.0 ft.
17	133.00	139.00	6.00	Relatively Flat Area
18	130.00	134.60	4.60	Relatively Flat Area – Very loose up to 8.0 ft. REMOVE

Boring No.	Approximate Existing grade (mts.)	Proposed Grade Elevation (mts.)	Cut (-) / Fill (+) (mts.)	Field Observations & Comments
19	128.00	134.00	6.00	Relatively Flat Area – Very loose up to 9.0 ft. REMOVE
20	128.00	132.00	4.00	Material Suitable for fill (A-2-4 AASHTO Type)
21	140.00	133.00	(7.00)	Rock area exposed Material Suitable for fill (A-2-4 AASHTO Type) – Seepage water observed possibly from PRASA's Water tank above.
22	133.00	131.50	(1.50)	Very hard rock beneath 9.0 ft. Material Suitable for fill (A-2-4 AASHTO Type)
23	135.00	129.00	(6.00)	Loose to medium dense (saturated) up to 25.0 ft. REMOVE
24	122.00	121.00	(1.00)	Deep Unsuitable Fill up to 15.0 ft. – REMOVE*
25	134.00	127.00	(7.00)	Loose to medium up to 6.0 ft. – REMOVE*
26	129.00	127.00	(2.00)	Material Suitable for fill (A-2-4 AASHTO Type)
27	130.00	128.50	(1.50)	Medium dense up to 5 ft.
28	139.00	139.00	-	Sloping grounds toward property limit
TP-1	134.00	127.0	(7.00)	Loose material to depth greater than 7 ft. (limit of backhoe arm)
TP-2	135.00	127.5	(8.00)	Loose material to depth greater than 7 ft. (limit of backhoe arm)
TP-3	144.00	144.00	-	Very hard rock encountered t 1.0 ft.
TP-4	141.00	142.1	1.15	Very hard rock encountered t 1.0 ft.

Note: * Undercut shall be allowed to remove any unsuitable, organic loose/soft fill section completely.

Based on the preliminary grading plans and present subsoil exploration being considered the above exposed circumstances were observed. It is estimated that maximum cut sections predicted is in order of 16.50 mts. On the other hand, the maximum fill thickness as presently proposed are the order of 12.50 mts.

Based on the available grading plans, both cut and fill sector will required to attain the proposed grading elevations of the residential dwelling units. Cuts into the hard tuffaceous siltstone rock and the removal of the undesirable loose (deep) fill layers and remnants of any previous structure remains [Borings 5 through 7, 9, 11-13, & 21 through 27] as well as fill will be required at certain sectors [Borings 1 through 4, 8, 10, & 13 through 20] of the tract of land to obtain the proposed grading elevations.

The present exploratory program disclosed deep filled sectors were made as deep as 50.0 ft. in depth [Borings # 7 & 11]. However, most of these filled sectors will be removed to cope with the proposed grading elevation presently being considered. However, at the vicinity of Boring # 11, where the proposed grading only considers a cut of 4.50 meters and the disclosed deep fill extent to 50.0 ft (15.24 mts.) in depth. Especially on this sector of the project to assure the global stability of the eastern slopes the complete removal and replacement of the unsuitable organic fill section shall be allowed.

Also, as part of the Site engineering design, special care shall be taken to **AVOID any cut/fill circumstances within the footprint of any structure.** Should the project's grading plans require this condition, within any structure (i.e. residential dwelling unit, pavements, infrastructure facilities, etc...) then, an over excavation shall be performed to allow a uniform fill section under any structure to be erected.

Also, although not foreseen, the possibility of encountering underground structures and facilities throughout the site cannot be discarded. Any variations of the grading data shall be submitted for our review and comments.

III. FIELD SUBSURFACE AND SAMPLING PROGRAM

3.1 Subsurface Investigations

The subsurface soil conditions at the site were investigated twenty-eight (28) standard penetration test borings and four (4) open pit excavations for the proposed for Site Development Project. The location of borings is shown in the accompanying Boring Location Plans, in Appendix A, Figure No. 2.

Sampling of soils was performed continuously in the upper 7 ft. and thereafter, at approximately five-foot intervals. All soil samples were taken with a 2"-O.D. split barrel sampler following the standard penetration test procedures in ASTM D-1586. Penetration resistance values from the standard penetration tests are recorded in the "N" column of the boring logs.

The procedures used for the laboratory tests, as well as the routine and special laboratory procedures used, for the determination of the index soil properties are contained in the Appendix (1) to this report.

3.2 Surface Soil Descriptions and Geological Notes

3.2.1 Surface Soils

Based on the US Soil Conservation Service Manual of the San Juan Area of Puerto Rico, Map #14, the surface soils at and near the site were described as follows:

Múcara clay (MxE), 20 to 40 percent slopes – This is a steep, well-drained soil on side slopes and rounded hill-tops of strongly dissected uplands. A few shallow and deep gullies have formed.

Typically, the surface layer is very dark grayish brown, firm clay about 5 inches thick. The subsoil is about 7 inches thick; it is dark brown, firm clay. The substratum, beginning at a depth of 12 inches, is highly weathered volcanic rock. Bedrock is at a depth of 30 inches.

The permeability is moderate, and the available water capacity is low. The runoff is very rapid, and erosion is a hazard. Slippage is common in road banks, ditches, and drainage ways. This soil is difficult to work because it is steep and because of the stickiness and plasticity of the clay. Hillside ditches and diversions are difficult to lay-out, establish and maintain. Controlling erosion is the major concern of management. This soil is limited for most urban uses because it is steep and shallow to rock. If the soil used as construction sites, development should be on the contour. Removal of vegetation should be held to a minimum and temporary plant cover established quickly in denuded areas.

Juncos clay (JuD), 12 to 20 percent slopes – This is a moderately steep, well-drained soil on side slopes and foot slopes of strongly dissected uplands. A few shallow and deep gullies have formed.

Typically, the surface layer is black, firm clay about 8 inches thick. The subsoil is about 10 inches thick; it is dark brown, firm clay. The substratum, beginning at a depth of 18 inches, is olive brown, firm clay. Volcanic rock is at a depth of 40 inches.

The permeability is slow, and the available water capacity is moderate. The runoff is rapid, and erosion is a hazard. Slippage is common in road banks, ditches, and drainage ways. This soil is difficult to work because of the slope and the stickiness and plasticity of the clay. Hillside ditches and diversions are difficult to lay-out, establish and maintain. Controlling erosion is the major concern of management. This soil is limited for most urban uses because slope its clayey nature, and a high shrink-swell potential. If the soil used as construction sites, development should be on the contour. Removal of vegetation should be held to a minimum and temporary plant cover established quickly in denuded areas.

Daguey clay (DaD), 12 to 20 percent slopes – This is a moderately steep, well-drained soil on stable side slopes, ridgetops, and foot slopes of humid volcanic uplands.

Typically, the surface layer is brown, firm clay about 10 inches thick. The subsoil is about 62 inches thick; it is yellowish red and red, firm clay. The substratum, beginning at a depth of 72 inches, is yellowish red friable silty clay loam saprolite, mottled with strong brown and reddish yellow. olive brown, firm clay.

The permeability and the available water capacity are moderate. The runoff is rapid, and erosion is a hazard. This soil is difficult to work because it is moderately steep and because the stickiness and plasticity of the clay. Controlling erosion is the major concern of management. This soil is limited for most urban uses because it is steep and subject to landslides. If the soil used as construction sites, development should be on the contour. Removal of vegetation should be held to a minimum and temporary plant cover established quickly in denuded areas.

3.2.2 Geological Notes

Based on available US Geological Survey Map I-479 of the Aguas Buenas Quadrangle prepared by Mr. Maurice H., Pease, Jr. (1968), as shown in a portion Figure 2 of Appendix 2, the units that lie at or adjacent to the site are the following:

1. **Guaynabo Formation (Kg)** - Described as chiefly rhythmically interbedded, thin-bedded volcanic wacke and tuffaceous siltstone interstratified with volcanic conglomerate containing well-rounded cobbles of lava, limestone, and quartz. The matrix of conglomerate contains fragments of red and green finely scoriaceous pumice.

The bedding planes of the Guaynabo thin-bedded shale like structure of the Guaynabo Formation (Kg), at the study area, shows dip planes with a near north- north-east, at about 50- degrees with the horizontal; (0.84H: 1V). Most of the dip planes are shown in the geologic map having a north- north-west trend at about 5- (nearly horizontal) to 25-degrees with the horizontal (2.14: 1V).

2. **Intrusive Rocks, Diabase (Td)** - Described as dark-gray coarse- to fine-grained diabase. Weathers to dark-yellowish-brown sandy soil and round residual boulders. Dikes of similar diabase cut rocks as young Río Piedras Siltstone in the Carolina quadrangle.
3. **Quartz diorite (TKd)** - Described as chiefly medium- to light-greenish-gray albitized quartz porphyry containing subhedral phenocrysts of quartz and plagioclase in a fine-grained matrix of albite but range from sodic andesine to albite. Rock is medium grained and equigranular in centers of large stocks and finer grained in the smaller dikes. Commonly, the quartz diorite is sericitized, chloritized, and partly altered to clay; locally it contains pyrite and base metal sulfides. Weathers to yellowish-gray sand containing flecks of mica. Contact indefinite in some places due to complex intertonguing with country rocks. Locally, quartz diorite underlies as much as 30 percent of areas mapped as Santa Olaya Lava; it is also abundant between Limones fault and Tortugas Andesite between Limones fault and north-westward extension of the Carraízo fault.

Three (3) approximate fault alignments are found near the study area based on the USGS geological plan. There are two (2) faults identified with a near northwest alignments, showing relative movements; the first fault passes through La Marina Sector, at the intersection with State Road PR-199, crossing Los Guanos Creek and thereafter, nearly parallel to Camino Los González extending toward the center of the tract of site land. The second fault, also crossing Los Guanos Creek at about 2200 ft., to the east of the site. A third fault, also showing relative movements intersects these two previously described fault lines at about 200 ft., south of Los Choferes Development, and nearly following the alignment of Los Guanos Creek, northwest from the study area. It has an east to northeast alignment south of State Road PR-199. Another major well-defined to approximate fault line is found further to the east from the site, extending from the Carraízo Fault to the south and passing adjacent and east to Las Curias Reservoir. This fault line is identified with a near north alignment following the Unnamed Creek, which coincides with the Municipal Limits of San Juan and Trujillo Alto, at about 100 ft., from the intersection of PR-844 and Camino Los Andino, which borders the site along the south. In the Geologic Maps (Aguas Buenas Quadrangle) these three faults show relative movements with the downthrown sides generally facing the east.

3.3 Stratigraphic Units

Highland Sectors – The profiles at this prominently rounded hill-tops, side slopes and where previous earthworks involving considerable cuts of uplands were carried out. Also, few shallow and deep gullies were formed where natural process due to weathering and erosional effects.

Surface Layer - Generally, the results of the exploration disclosed a surface layer extending from 1.5 to 4.0 ft. in depth [Borings 1, 3, 12 and 13]; namely, a surface section of yellow brown, dark brown, light olive brown, and light gray silty clay, with few to many roots at ground surface. The standard resistance to penetration (N-values) of the upper surface layer varied from 9 to 24 blows/foot. A stiff to very stiff state of consistency for the prominently clay soils can be predicted with these values. The natural moisture content values range from 31 to 34 percent.

Intermediate Sloping Grounds – These are identified as the subsoil and substratum layer in the profiles on moderately steep, well-drained soil on side slopes and foot slopes

[Borings 14 to 19]. The subsoil is prominently sandy silt and firm saprolitic clay loam. Until the volcanic material was found volcanic consisting of thin-bedded volcanic wacke and tuffaceous siltstone interstratified with volcanic conglomerate containing well-rounded cobbles of lava, limestone, and quartz.

At some of the previously cut sectors, the exposed material containing large number of boulders and cobbles were encountered. These sectors were identified at the south-eastern and northern sectors of the tract of land [Borings No. 2, 6 Test Pit # 3 & 4].

At lowland, Gully Stream Sectors and Small Valleys – The profile units found at this sector of the tract of land [Borings 14 to 19], on foot slopes of humid volcanic uplands consist of an surface layer silty clay with traces of sand and variable amounts of subangular gravel fragments, extending from 8 to 15 ft., followed by yellow, yellowish red, brown mottled mixture of friable sandy silt and clay loam saprolite. The standard resistance to penetration (N-values) of the upper surface layer varied from 4 to 34 blows/foot. A medium to hard state of consistency for the prominently sandy clayey silt soils can be predicted with these values. The natural moisture content values range from 9 to 36 percent,

At lowland, gully stream sectors, where a previous earthwork impact was evidenced [Borings 4, 6, 7, & 11], where fill sections, respectively extend to about (6', 25', 53', 48 ft.) in depth. The fill layers contained few to many root and organic matter intercalated within the The standard resistance to penetration (N-values) of the upper fill layers varied from 4 to 41 blows/foot. The natural moisture content values range from 9 to 43 percent.

Residual and Weathered Rock Material - At hilltops, side slopes and gully sectors, the residual layers consist of dense to very dense silty sand and sandy silt fines of the thin-bedded shale like structure of the Guaynabo Formation (Kg). These layers were described with variable amounts prominently sandy silt with saprolitic material with completely weathered rock fragments, extending from the lower horizon of the surface alluvial soils. The upper residual material extends to depths varying from 8 to 15 ft. in depth; or to the top of the Highly weathered rock found in the exploration. The prominent colors of the samples were the light olive brow, brown, grayish brown with mottles white and black. The standard resistance to penetration (N-values) of the upper residual layers varied from 32 to 80 blows/foot. Prominently, the sampling attempts through lower

depths disclosed practical refusal to penetration, with values more than 60 blows for a few inches to penetration.

The graphical representation of the soil profiles is found in the boring logs included as Appendix (1) to this report. It includes the soil classification of randomly selected samples for most of the subsurface layers. Refer to the individual result of soil classification contained in Appendix (3) – Special Laboratory Tests.

3.4 Groundwater Levels

In general, the groundwater was not found within the extent drilled. However, perched water condition may be encountered, as a result of low permeability within the surface clay soils at the site, especially along the identified drainage gully toward Los Guanos Creek, Refer to Figure No. 3 of Appendix A.

Therefore, some dewatering may be required during the foundation excavations and earthwork construction resulting from surface runoff and along gully streams crossing the development through a near east – northeast alignment toward the lowland sectors of the tract of land, particularly, during periods of intensive rains.

Any groundwater flows must be intercepted and carried to adequate drainage facilities outside the building areas. During construction, care should be taken to drain rain water to proper out falls. All surface run-off water shall be collected along the gully stream alignment identified with a detailed topographic elevation review, along the gully streams emanating from the eastern highland sectors. It is along their alignments that a main “French Drain” collector and complementary drains and their tributary stream alignments, shall be constructed beneath the existing ground and new embankment fill section to be constructed.

The underground storm water drainage required shall be drained away from the structures and from slopes surfaces. Internal drains within the new structures are not recommended; these shall be drained away from the structures and slope surfaces. Collected water shall be directed all the way to the toe of the western slopes.

All the depths were established after the boring were completed and were measured from the existing ground surface prevailing during the period of the field work.

IV. ENGINEERING RECOMMENDATIONS

4.1.1 Unsuitable Fill Organic Surface Material at the Site

At most of the explored locations, a deep unsuitable fill and deep root zone was found at Borings 4 through 6, 10 through 11, 13, 18 through 19, 23 through 26, & Test Pits 1 and 2 varying in depth. However, at the location of Borings # 6 & 11 it was found as deep as 50.0 ft. in depth. This fill sections were developed during a previous earthwork performed between 2002-2005. However, most of the previously deposited unsuitable fill will be removed should the preliminary proposed grading elevations prevail, except at the vicinity of Boring # 11, where the proposed grading only considers a cut of 4.50 meters and the disclosed deep fill extent to 50.0 ft (15.24 mts.) in depth.

The complete removal and replacement of the clayey surface layer exhibiting vegetative matter with an extensive root zone and any overly saturated loose fill material shall be allowed. However, the actual extent of removal shall be determined at the field by the inspecting soils engineer. The minimum extent of removal is summarized in the following table.

MINIMUM DEPTH OF REMOVAL

Boring No.	Minimum Removal Depth (ft.)
1	2.0
2	2.0
3	2.0
4	6.0
5	2.0
6	33.0
7	50.0
8	1.0
9	-

Boring No.	Minimum Removal Depth (ft.)
17	1.0
18	8.0
19	9.0
20	-
21	1.0
22	2.0
23	2.0
24	15.0
25	6.0

Boring No.	Minimum Removal Depth (ft.)
10	2.0
11	50.0
12	1.0
13	4.0
14	1.5
15	1.0
16	1.0

Boring No.	Minimum Removal Depth (ft.)
26	2.0
27	5.0
28	2.0
TP-1	>7.0 ft.
TP-2	>7.0 ft.
TP-3	-
TP-4	-

4.1.2 Fill Embankment Stabilization Demucking and Fill Considerations

Laboratory tests performed on random samples secured revealed unsuitable material to be used as backfill material, except at the vicinity of Borings 9, 20 through 22, and 26. Therefore, any in-situ soil to be used as backfill shall be taken to a soils laboratory prior to its used; to confirm the material complies with specifications (A-2-4 of better AASHTO type). Otherwise it shall be disposed or save to be used on green areas, **SOLELY**. By **NO MEANS**, the in-situ soil be used to erect any slope at the Site. Neglecting to follow this important aspect of construction may lead to future slope failures and embankment instability.

As previously mentioned, large boulder and cobbles were found throughout the site. It is highly probable these will be found during excavation procedures. Therefore, it should be noted that large cobbles, boulders and rock fragments will need to be reduced in size prior to be reused as backfill material or hauled off site. Some additional effort may be necessary to extract boulder sized materials, particularly in deep narrow excavations. Thus, large in-situ boulders found cannot be used as backfill material unless they are regraded to a maximum size of eight (8") inches in diameter. To be able to use them, they shall be scattered all throughout the site and by **NO MEANS** should two (2) or more, be place adjoining each other. This may cause voids between them, which may cause future settlements of the deep fill embankment.

Also, as part of the site construction, the following construction stages shall be considered:

1. All permanent fill layers shall be deposited in stages, after the surface unsuitable material (i.e. surface vegetative cover) and any remnant of loose fill and debris from previous structures have been removed.
2. A uniform thickness beneath the footprint of the structure shall be provided. In any case, the difference in the total fill thickness beneath any structural unit, as established by the structural designer, shall not exceed 1.0 m.
3. Special care shall be taken to avoid any cut/fill circumstances within the footprint of any structure. Should the project's grading plans require this condition, within any structure (i.e. residential dwelling unit, pavement, infrastructure facilities, etc...) then, an over excavation shall be performed to allow a uniform fill section under any structure to be erected.
4. Whenever the fill thickness is greater than 3.0 meters the proposed development shall be treated with an alternate scheduling construction scheme, considering a delay stabilization program. Additional consideration for the delay stabilization program is further discussed in the following section of this report.
5. All fill and cut slopes shall be constructed at a maximum slope ratio of 2.0H: 1.0V (Horizontal: Vertical). When the competent volcanic wacke and tuffaceous siltstone is exposed during excavation a maximum slope ratio of 1.5 H: 1.0V (Horizontal: Vertical) can be considered. Under such circumstances, the exposed hard volcanic material shall be inspected, to review the bedding planes and other discontinuities which can be observed on the exposed cut surface by the Consulting Geotechnical Engineer.
6. All borrow materials shall be taken to a soils laboratory for testing and approval prior to their use at the project. Refer to Appendix 3 for classification test results of samples from the surface layers of the site.

All fill material, including pavement sectors, shall also comply with AASHTO A-2-4 or better classification and shall be compacted in layers not to exceed 6 inches to not less than 95% of the

Modified Proctor Density. The enclosed fill specifications (Appendix 2) detail our recommended Fill Specifications.

Any new ground floor slab of the structures shall be casted over a well-engineered fill material, following the standard specifications for fill construction, contained in Appendix II to this report.

4.1.3 Deep Fill Delay Stabilization Program

As previously mentioned, the subsoil exploration performed disclosed various sectors where a deep unsuitable loose in-situ fill material with organic matter (at some locations) was previously deposited varying in depth between 1.0 to 50.0 ft. in depth. Therefore, the complete removal and replacement of the unsuitable fill section with a controlled engineering fill section shall be allowed. However, most of the previously deposited unsuitable fill will be removed to cope with the proposed grading elevation of the project, except at the vicinity of Boring # 11, where the proposed grading only considers a cut of 4.50 meters and the disclosed deep fill extent to 50.0 ft (15.24 mts.) in depth.

Nevertheless, whenever the fill thickness is greater than 3.0 meters the proposed development shall be treated with an alternate scheduling construction scheme, considering a delay stabilization program.

Thus, the proposed development shall be treated with an alternate scheduling construction scheme, considering a delay stabilization program. The program shall include the installation of monitoring stations with settlement platforms until the complete stabilization of the deep fill section (3.0 meters or greater in thickness) is completed.

The delay in the construction schedule is necessary to assure readjustment of the compacted deep fill section, due to its own weight and percolating water. The delay period shall be considered as a general guideline for the project to assure the deep fill sections has been stabilize completely, the installation of settlement platforms to monitor settlements shall be installed at an elevation equal to every 25 % of the total fill thickness once the complete removal is performed and prior to proceeding the next 25 %.

The stabilization time required will depend on the actual amount of fill thickness. Regardless, actual time shall be determined based on the results of the monitoring of the proposed settlements plates to be installed at the field. Therefore, the program shall be in place until stable conditions are met. Precise level surveys shall be made, considering vertical elevation data with measurements to a 0.001 precision. The data shall be obtained weekly for the first month and bi-weekly thereafter, until five (5) consecutive readings show settlement variations not greater than 0.5 mm.

4.1.4 Groundwater and Surface Runoff Control

As previously mentioned, all surface run-off water emanating from the eastern highland sectors shall be collected along the gully stream alignments identified with a detailed topography elevation plan. Refer to Figure No. 3 of Appendix A as reference, however it shall not be used as a substitute to any hydrologic analysis. This shall be performed by a dully registered hydrologist.

The gully streams drain the surface runoff emanating from the highlands sectors (adjacent to State Road PR-844) and spreads the runoff waters towards the lowland sectors to the south-west and north-west of the property land to be developed. Special considerations shall be put in place during the Site Design to allow the natural drainage patterns through natural gullies of the Site. For such purposes underground, French Drain Collector (of sufficient capacity to be determined by the project's hydrologist), shall be installed during the earthwork operation and prior to the placement of any fill section, to maintain the natural underground drainage patterns beneath the proposed residential lots. Refer to Figure No. 3 of Appendix A.

It is along this gully alignments that a main "French Drain" collector, shall be constructed beneath the existing ground and new embankment fill section to be constructed to prevent underground erosion/raveling of the newly constructed fill section. All groundwater flows must be intercepted and carried outside the structure's areas and slopes through adequate drainage units (i.e. "French Drains"), enclosed with nonwoven filter fabric (TerraTex NO4 or similar).

Neglecting this important aspect of the Site design may lead to underground soil raveling causing detrimental effects to the residential dwelling units. Storm water emanating from neighboring developed areas and new storm water flows, may reach the lowland areas to the presently

proposed development. Thus, its impact shall be considered in the Site Engineering Design and proposed storm drainage system of the project.

Also, field observation revealed continuous waterflows from the upper neighboring lots (i.e. Alturas del Bosque and PRASA facilities), near Borings # 20, 21 and 25. Since there is no way to predict if or when their storm sewer system/drainage facilities or tank structure will be redirected/diverted (fixed) of possible future deterioration of their systems a perimetral drain (i.e. French Drain) along the toe of the presently proposed northern sloping ground to intercept/divert surface and subsurface water runoff shall be provided and/or connected to the project's storm sewer system.

Also, for any new pavement structure, a properly designed underground drainage system shall be provided. Geotextile membranes shall be provided to assure water running along the old stream gully alignment is not subject raveling and erosion. The underground drainage system is required to permit the underground water flows is carried away and diverted to proper outfalls.

Also, any underground water, not adequately drained, may flows beneath foundations creating unsuitable erosional and expansion effects on foundations. Therefore, a perimeter drain shall be placed along the footings and drained away from the units to proper outfalls. This aspect of the construction and design should not be overlooked.

Some dewatering is expected during the foundation excavations and earthwork within the clay material, where ponds of water are normal. Particularly, during periods of intensive rains, some dewatering should be expected in the excavation phase of construction resulting from surface runoff.

4.2 Foundation Design Recommendations

For the proposed One-story Residential Units, the use of individual spread and/or combined footing can be used to support of the New Structure loads. The foundation design shall consider an allowable soil bearing pressure at the minimum depth of foundation (Df) established on the following Table.

SUMMARY OF PRELIMINARY FOUNDATION RECOMMENDATIONS

Structure Identification	Boring No.	Allowable Soil Bearing Pressure (ksf.)	Modulus of Subgrade Reaction Kv (lbs./sq.-in./in.)	Minimum Depth of foundation below the final grade (ft.)
Residential Dwelling at Filled Sectors	1, 2, 4-7, 8, 10-11, 13-20, 23-27, TP-3, TP-4	2.5 ksf.	65.0	@ 3.0 ft.
Residential Dwelling at Cut Sectors	3, 9, 12, 21, 22, 28	3.5 ksf.	75.0	@ 1.5 ft. *

Additional Notes:

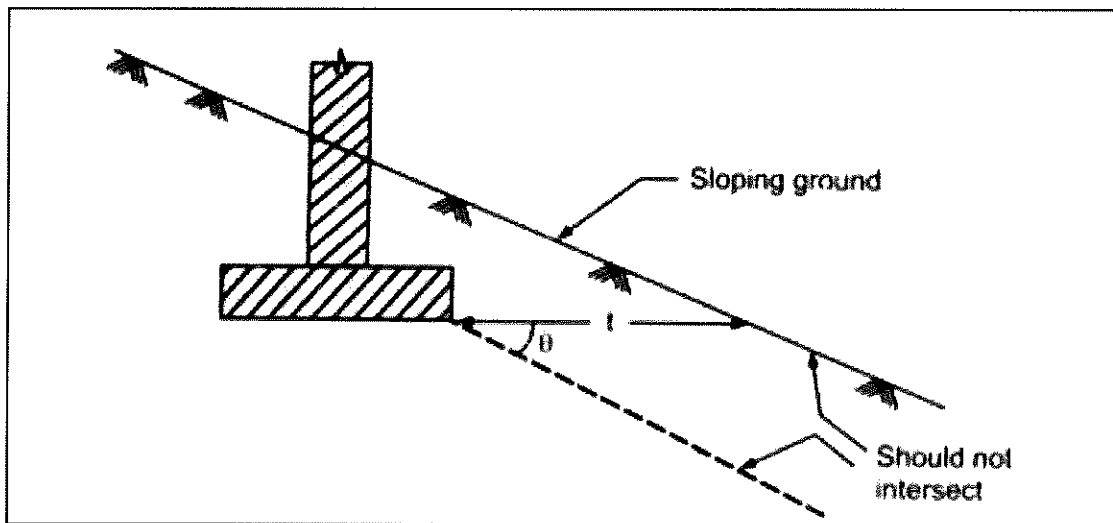
- Both cut, and filling will be required all throughout the project to establish the final grading elevations to level the area of the proposed Residential Units. However, some additional fill may be required at cut sectors where the residual and weathered saprolitic material or even fresh rock is exposed to construct a sand/crushed stone cushion underneath foundation units, to avoid any punching shear to the foundation.

All fill material as required on this project shall be controlled fill material (AASHTO Classification A-2-4 or better) and shall be compacted to 95 % Modified Proctor Density. For controlled fill, it is meant to place the fill layers in 6-inch lifts, each layer compacted to not less than 95% Modified Proctor Density. The allowable bearing pressure for the fill material shall not exceed 2.5 ksf.

Also, a uniform fill section is required, for which the expected fill section may increase even more. This is to assure the differential settlements are maintained within tolerable limits for the structural building unit. Therefore, **IN NO CASE** shall a cut/fill scenario within the footprint of any structure shall be allowed.

Also, considering some of the proposed foundation unit may lie close sloping grounds surfaces, the depth of foundation on these circumstances shall be compatible with a minimum depth requirement such that a line drawn from the bottom edge of the foundation at an angle (θ) of 30° and at a horizontal distance (t) of 15 ft. do not intersect with the face of the slope. Refer to the following Figure C.

FIGURE C: Footing in Sloping Grounds



NOTE: The footing depth on sloping grounds shall satisfy a minimum separation requirement such that a line drawn from the bottom edge of the foundation at an angle (θ) of 30° and at a horizontal distance (t) of 15 ft. do not intersect with the face of the slope.

Should the proposed foundation do not meet the minimum separation requirement, deepening of the foundation shall be required. Also, a structural key or soil/rock anchors may be provided to the foundation to avoid the translation of the foundation stressed to the sloping grounds and provide an additional sliding retaining measure. However, the prevailing slopes to remain shall be protected against erosional effects during an intensive rainfall event.

4.2.1 Retaining Wall Design Parameters

Considering the presently design scheme, it may be required the construction of several retaining wall(s), depending on the final grade and sloping grade requirements. The retaining wall units shall retain the in-situ material, cut slopes, structure loads and any new fill thickness required at the site. At this design stage, the specific locations, longitudinal extension of each wall, and wall height(s) are not known, until detailed design grading plans are developed. Once such plans are available, they must be forwarded to the undersigned to provide any additional soil parameters to be used in the design of the various retaining wall types and locations. **For preliminary design purposes** in the planning phase and pertinent cost evaluations, the enclosed Table 4, present general preliminary design parameters.

SUMMARY OF IN-SITU SOIL PARAMETERS FOR DESIGN

Area covered by Boring:	Unit Weight (pcf.)	Angle of Internal Friction (degrees)	Cohesion (psf.)
New Fill (A-2-4)	125	27	Neglect
Residual Material	115	25	-
Weathered Rock	132	33	-

Lateral Pressure Coefficient at rest case (K_0) = $1 - \sin \phi$

Lateral pressure coefficients are given for the active and for the at-rest case, depending on whether the walls of the unit allow the walls to rotate at the top during construction or not. The depth of foundation shall be compatible with the minimum depth requirements previously described.

Preferably, the back-fill soil is to be clean, free draining coarse granular material (AASHTO A-3 classification), placed in 2-inch to 3-inch layers, each compacted to at least 90% of the material's Modified Proctor maximum density. A Prefabricated Drainage Composite (i.e. Miradrain 6200 or similar) can be used as alternative to the granular back fill around the foundation walls. The back fill for the wall should be granular (AASHTO A-2-4 or better), carefully placed and of good quality.

A perimeter drain shall be placed along the wall footings and drained away from the units to proper out falls. Underground water, if any, may flows beneath foundations, which are not adequately drained, creating unsuitable erosional effects on foundations. This aspect of the construction and design should not be overlooked.

Also, adequate impermeable membranes or coated with rubberized emulsion foundation coating (i.e. Seal Master® F2045P or equivalent) shall be provided to underground wall or portions of the structure, which shall be subjected from overly saturated soils conditions and groundwater run-off.

4.2.2 Special Settlement Considerations

Under the shallow footing type, it shall be considered the differential settlement between central and extreme sectors of the any unit. The estimated and predictions of both differential and total settlements do not exceed 0.15 of an inch between the central and extreme sectors of the proposed Single-Family One-story Residential Units. However, where major fill thickness (in excess of 3.0 m.) are required to establish the rough grade of any structure, a review of the earthwork construction process shall be necessary to establish the special stabilization required for such critical earthwork process. A delay of stabilization requirements may be necessary under strict settlement control, by representatives of this office. Such requirements shall be established after the final grading plans of the project are submitted to this Geotechnical Engineering Office for review.

The most important aspects for construction at the site are those related to the fill embankment section beneath the structure. The uniform fill section and the removal of all construction debris, from the demolition phase, if any, and any loose surface fill material shall be allowed to reduce the expected settlements.

4.3 Earthquake Design

Based on our experience with the geology of the area, it is our opinion that the subsurface characteristics reflect those of Site Class D as described in International Building Code 2018 and the Puerto Rico Building Code 2016. The "Site Class" is a designation used by the 2018 International Building Code (IBC) (ICC 2018) to quantify ground motion amplification.

Spectral Response Acceleration of 90% of g. (probability of exceedance of 2% in 50 years) is identified for the Municipality of San Juan. Considering the soil conditions a site class "C" shall be used for foundations on rock and D for foundations on soil.

4.4 Additional Earthwork Considerations

For most parts of the project, shallow excavations to remove the loose unsuitable fill material can be performed using backhoe equipped with a short tip radius and narrow bucket. However, high resistance to penetration values were found as shallow as 1.0 ft., beneath existing grade within the upper horizon at the presently investigated locations. The extent of depth where the Standard Resistance to Penetration (N-values) exceeds 40 blows/foot is where difficulty in the trench excavations is predicted.

A careful review of the geological plans with the herein enclosed profile information would assist the planners in the selection of the adequate cutting equipment of the project.

Very dense soil and weathered rock typically require loosening by ripping with large dozers pulling single tooth rippers in mass excavation or possibly blasting in confined (trench) excavation. Ripped weathered rock fragments can be re-used and mixed into engineered fill, provided that it is pulverized to less than 4"-inches in diameter and mixed with soil to create a well graded fill material.

It should be noted that frequent occurrence of consolidated materials, cobbles, boulders and rock fragments within the profiles above the foundation excavation will increase both the time and cost of the operations. Boulders will need to be reduced in size prior to be reused as backfill material or hauled off site. Some additional effort may be necessary to extract boulder sized materials, particularly in deep narrow excavations.

In-situ boulders found at the site cannot be used as backfill material unless they are regraded to a maximum size of eight inches in diameter. To be able to use them, they shall be scattered all throughout the site and by **NO MEANS** should two (2) or more be placed adjoining each other. This may cause voids between them, which may cause future settlements of the deep fill embankment.

Excavation techniques will vary based on the degree of weathering of the materials, fracturing and jointing in the rock, and the overall stratigraphy of the feature. Excavation of auger refusal material (i.e. weathered rock, fresh rock, etc...) typically requires special demolition tools,

systematic drilling or even blasting. However, blasting shall not be considered in this project su to nearby structures (i.e. Residential Development – Alturas del Bosque).

4.5 Excavations and Rippability Characteristics

For most parts of the project, shallow excavations of the loose unsuitable fill section can be performed using back hoe equipped with a short tip radius and narrow bucket. However, at the location of higher resistance to penetration were obtained in the saprolitic material, which may require **Special Demolition Equipment**. Frequent occurrence of consolidated materials, boulders and rock fragments within the profile above the bottom excavation elevations will increase both the time and cost of the operations. Actual fresh rock material using diamond bits was not drilled during the subsurface exploratory program.

It is estimated that for trench excavations, which are limited in dimensions, the use of back hoes shall be used for the excavations. These shall be equipped with special demolition tools to drill through the more consolidated portions in the profiles to attain the desired bottom elevation of the excavation.

The difficulties of excavations begin to be of consideration for materials exhibiting higher than 40 blows/foot of penetration. In this project, such types of materials were found as shallow as 1.0 ft. in depth and they will be more evident after the general grading operations are done. During the excavation process it is contemplated, that the highly weathered rock material from the parent volcanic rock boulders and cobbles shall be encountered at deep cut sectors.

Experience dictate with similar materials, such as residuum of the weathered volcanic rock found, sometimes it is required the use of systematic drilling and even the use of pave-breakers, to lower excavation through these very hard materials.

A careful review of the geological plans with the herein enclosed profile information would assist the planners in the selection of the adequate cutting equipment of the project. It should be noted that sound rock material was drilled in the present test boring program.

Additional seismic refraction survey shall be performed to establish and predict the required earth-moving equipment to excavate through the different geological formations and rock types, at each sector of the project. It is known that excavation in rock depends on the bedding planes (joint spacing and thickness of beds).

4.6 Pavements

4.6.1 Pavement Design

As part of the improvement project, it was necessary to establish the parameters of the in-situ subgrade and proposed fill types for the proposed new access road.

The asphaltic pavements of the proposed road sections may be designed using a CBR value in the order of 6 to 10, assigned to the in-situ clays, A-6, and A-7-6 and gravely sandy silt, for the A-4 and A-2-4 soils, exposed as subgrade of the pavement section. For the proposed fill types, the CBR value shall not exceed 25 to 40 percent, considering AASHTO classification A-2-4 or better recommended for the project.

For rigid pavement design the Roadbed Soil Resilient Modulus, Mr Value is in the order 4,250 pci for A-7-5 soils, exposed in-situ roadbed, along most of the project sectors. The A-2-4 material to be used to substitute the expansive clay soils, as required for the project can be assigned a Soil Resilient Modulus, Mr Value in the range of 21,000 to 24,000 pci. These values are our best estimates for the in-situ and fill types being considered, placed and adequately compacted in accordance to the earthwork specifications in Appendix 2 to this report.

The thickness of the base and surface course material is a function of the design. At cut and fill sectors the exposed grade shall be scarified and compacted to the in-situ soils maximum Modified Proctor Density. At cut sectors, whenever moderate to high expansive clay soils are exposed, if any, an over excavation of 1.5 m. shall be necessary to assure adequate subgrade materials beneath the pavement section.

The proposed design of either flexible or rigid pavements shall consist of providing the following pavement components:

(1) The selected surface course;

(2) A Crushed–Stone Base Course, consisting of crushed-stone or gravel or natural gravel, as per AASHTO Classification. It shall be placed at a minimum eighty-three (83) percent compaction of its solid volume density, as obtained by the bulk density.

This compaction criterion shall be required for the base course. The base coarse section design shall consider Section 304-2 Materials and 703-4 –Aggregate for Base Course of the Standard Specification for Road and Bridge Construction of the Department of Transportation and Public Works (2005 Revision), which states “Aggregate for untreated aggregate base course shall consist of hard durable particles or fragments of crushed stone or crushed or natural gravel conforming to the grading requirements shown in Table 703-4, as presented in the following table.

(3) The Sub-grade Course shall consist of A-2-4 or better, as per AASHTO Classification, imparted with a minimum 95 percent compaction. The compacted Subgrade material shall be used to substitute the upper exposed native silty clay when removed according to the previously discussed depth of over excavation.

4.6.2 Storm Water Run-off Control

Whenever large topographic changes are made, groundwater flows are usually found, which can be detected during the grading process. Such conditions shall be observed, and the flow diverted to proper outfall, through adequate drainage facilities. All drainage ways shall be paved or *French Drains* with rip rap facings shall be constructed at sectors where it is predicted extreme erosion.

Groundwater drainage is required to assure long term performance of new paved roadways. Water under pavement is one of the primary causes of pavement failure. Water, either from precipitation or groundwater, can cause the subgrade to become saturated and weaken. This will contribute to pavement pumping under large number of heavy loads. Thus, it is recommended to assure adequate drainage facilities are provided, including sectors near planting strips.

Permeable bases are primarily provided with positive and effective removal of water from under the pavement to a drainage system. These bases are typically a coarse aggregate with almost no fine material, thus containing a large pore system which will rapidly drain by gravity forces. However, such material is typically unstable under construction traffic, thus it is stabilized using cementing material such as asphalt binder or Portland cement. A separator layer of Type 1 aggregate base is normally required to keep subgrade material from infiltrating the base.

Interception type drains shall consist of French under drains which consist of fabric wrapped, coarse porous backfill in a trenched installation. No pipe is used except for a short length of metal pipe as an outlet.

Pipe-aggregate under drains consist of a geotextile lined trench, perforated plastic or metal pipe, and porous backfill. Functionally, these may be installed either as interception drains to capture localized sources of water, or as pavement edge drains to drain permeable base course on new construction.

Furthermore, storm water drainage from neighboring developed areas and new storm water flows, during extensive rain periods may reach the low land areas of the presently proposed development. Thus, its impact shall be considered in the design of the proposed storm drainage system currently being proposed for the Ensueño Residential Complex. Perimetral Drainage (i.e. French Drain) along the toe of northern sloping ground to intercept/divert surface and subsurface water runoff shall be provided.

Also, field observation revealed continuous waterflows from the upper neighboring lots (i.e. Alturas del Bosque and PRASA facilities), near Borings # 20, 21 and 25. Since there is no way to predict if or when their storm sewer system/drainage facilities or tank structure will be redirected/diverted (fixed) of possible future deterioration of their systems a perimetral drain (i.e. French Drain) along the toe of the presently proposed northern sloping ground to intercept/divert surface and subsurface water runoff shall be provided and/or connected to the project's storm sewer system.

4.7 Nearby Structures

The earthwork process and the installation of foundation units require special consideration regarding vibrations during the earthwork process. The actual extends of vibrations to be produced by the equipment to be used during the construction sequence difficult to predict at this stage of design. Regardless of the vibration restrain process provided, the use of photographs prior to the construction sequence is very valuable to establish preexisting conditions of nearby structures. These are very valuable in court. A monitoring process of vibrations shall be in place during the construction sequence, as considered necessary by the contractor.

Depending on the proximity of existing foundations of adjacent structure at the boundaries of the building site, the impact of new foundation loads and required foundation elevation shall be evaluated. This important consideration shall be evaluated by design, well in advance to the actual construction of the selected foundation locations. This important aspect of construction shall not be discarded.

Also, considering closeness of the eastern residential development (Alturas del Bosque), blasting to advance any excavation within the hard rock material shall not be performed.

4.8 Additional Recommendations

We urge that our firm be retained to review those portions of the plans and specifications that pertain to earthwork and foundations to determine whether they are consistent with our recommendations. In the event the undersigned is not selected to review this item of the project contracts, the designers and construction firm involved in the design shall assume full responsibility of such important phase of the works.

The recommended geotechnical design concepts must be complemented with a structural design, which include and is not limited to the preparation of plans and specifications. Geotechnical reports by themselves are not considered a structural report and do not make any recommendations in relation to any structural problems observed nor any solutions that maybe required. It may be used as an adjunct to a Structural Report, prepared by a suitably qualified registered structural engineer. For such purposes, we urge the structural designer to contact this office to clarify, review the designed process and to provide support in the preparation of the

specifications for the required work, to meet the geotechnical requirements herein being presented.

In addition, the owner and/or design team shall be aware that stability of the existing slopes (cut and fill slopes), especially those to the eastern property line are beyond the scope of the present work. An additional subsoil exploration shall be performed for such purposes and to provide additional design parameter for any retaining structure, if deemed necessary.

V. LIMITATIONS OF THIS REPORT

The above recommendations are based in the preliminary secured information and interpretation of laboratory data of an arbitrary number of test borings. Actual conditions, especially at intermediate locations, may differ from the information obtained in this exploration. The additional subsurface exploration shall be used to establish the final parameter of foundation design and pertinent geotechnical recommendations for the project.

The recommendations contained in this preliminary report may have to be varied to accommodate recommendations to cope with undisclosed conditions. Furthermore, the monitoring and inspection of earthwork related construction procedures, as well as the supervision of the implementation of the herein given recommendations shall be made by the writer or his approved representative.

Otherwise, the inspecting engineer shall study this reports, perform additional tests as he deems necessary, to submit his own recommendations or assume full responsibility of the herein given recommendations in their entirety. In the event there is any changes in the nature, design, or location of the proposed development planned, the conclusions and recommendations contained in this preliminary report should not be considered valid unless the changes are reviewed, and the recommendations contain herein are verified and/or modified in writing by the undersigned.

Also, this preliminary report should not be considered valid until the Final Geotechnical exploration is performed and the final design parameters are submitted once the final design scheme is known and evaluated by the undersigned.

The undersigned will not be responsible for any claims, damages, or liability associated with interpretation of subsurface data or reuse of the subsurface data or engineering analysis contained herein without his written consent.

The provision of services by Despiou Associates is specific to only providing documentation in relation to geotechnical recommendations and specifications for this project. All other engineering or non-engineering specifications are not included in the service herein provided. The scheduled fee does not cover any provision of any services beyond the issue of this geotechnical Report. All further documentation or inspections will be charged at a separate quoted fee.

Also, if the geotechnical report is used for construction and/or to obtain a Construction Permit it will be considered an acceptance by the client of all geotechnical specifications and recommendations contained.

Respectfully Submitted,

DESPIAU ASSOCIATES


Jose R. Despiou, PE
Geotechnical Engineer

DA/18D3803

Appendix (A) – Figures

1. US Geological Survey Service Topographical plan at a scale 1:20,000
- 1A. Geological Map
2. Boring Location Plan
3. General Drainage Pattern Illustration

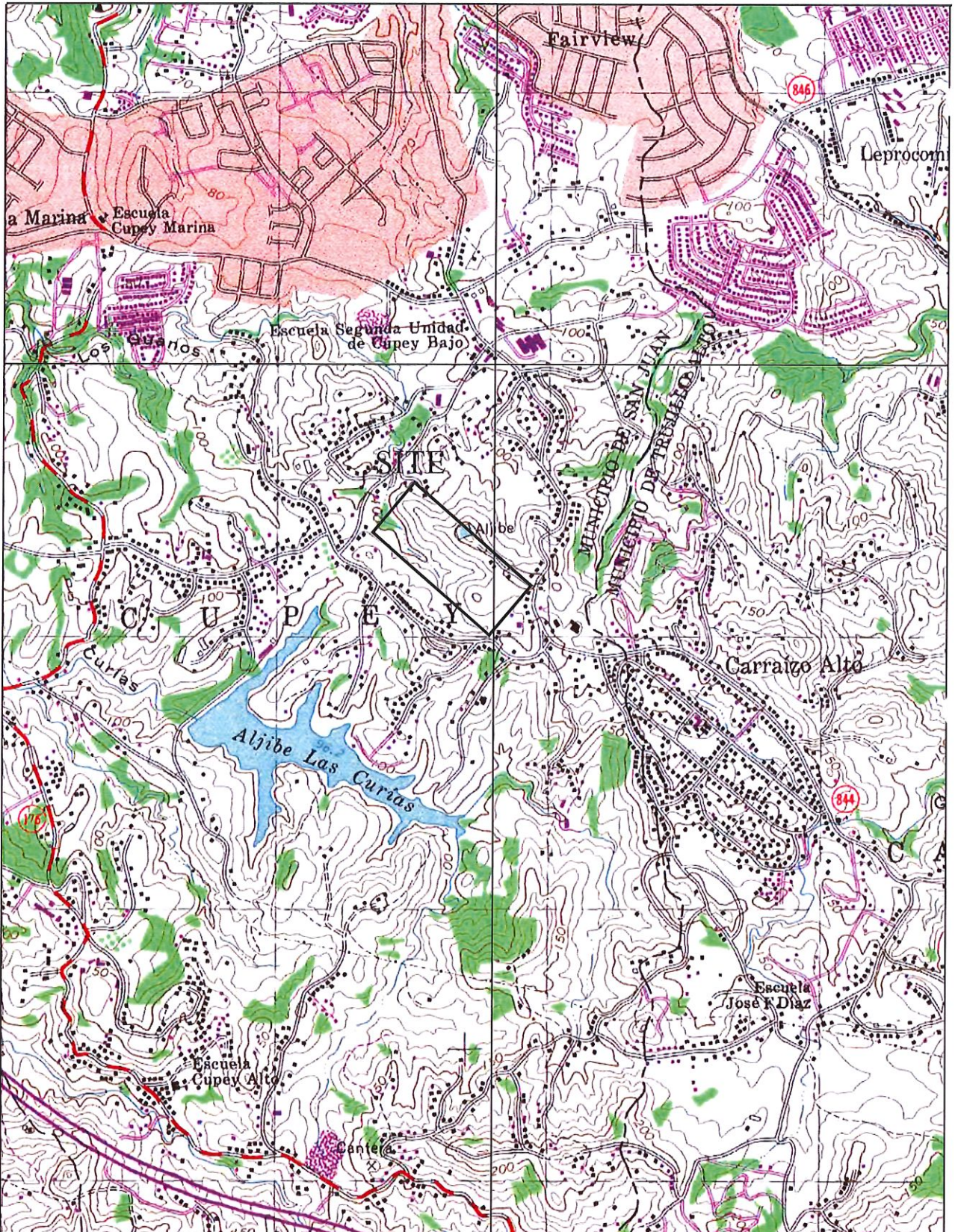
Appendix (1) - Boring Logs

Appendix (2) – Earthwork Specifications

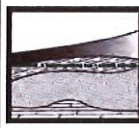
Appendix (3) - Special Laboratory Tests

APPENDIX (A)

Figures

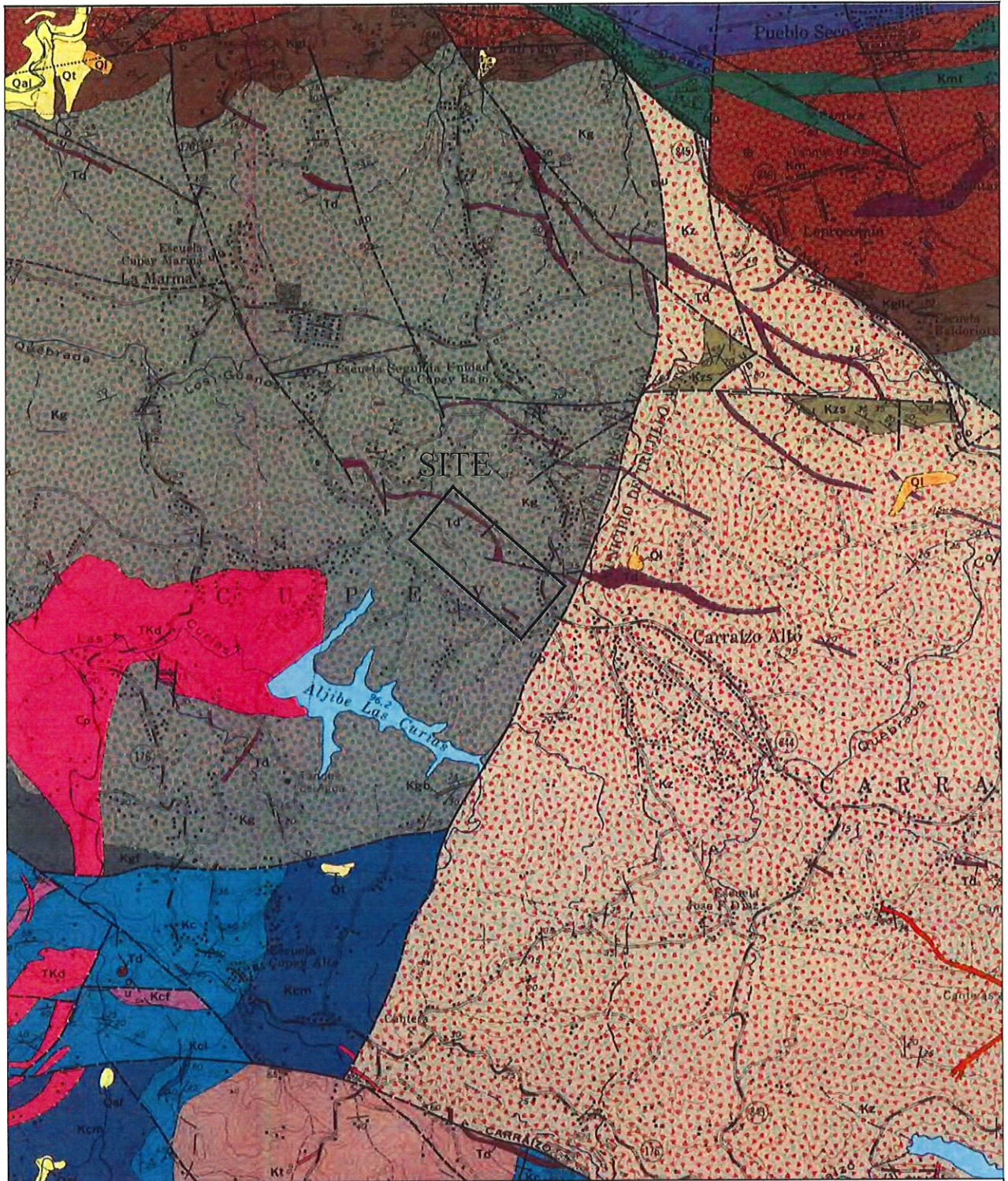


FROM US GEOLOGICAL SURVEY TOPOGRAPHIC MAP AT A SCALE 1:20,000



DESPIAU ASSOCIATES CORP.
 SOIL/GEO TECHNICAL ENGINEERING LABORATORIES
 P.O. BOX 260370, San Juan, Puerto Rico 00926-2622 / (787) 281-0686

SITE PLAN
 GEOTECHNICAL EXPLORATORY FOR THE
 PROPOSED ENSUEÑO RESIDENTIAL DEVELOPMENT
 at CUPEY WARD OF THE MUNICIPALITY OF
 SAN JUAN, PUERTO RICO.
 REFERENCE NO. DA/18D3803



NOTE:
 THE GEOLOGICAL UNITS IDENTIFIED AT OR IN THE VICINITY OF THE PROJECT ARE INDICATED IN THE US GEOLOGICAL SURVEY MAP (I-479)
 OF THE SAN JUAN QUADRANGLE PREPARED BY MAURICE H. PEASE, JR. (1968) FOR THE US DEPARTMENT OF INTERIOR.

SCALE: NOT TO SCALE.

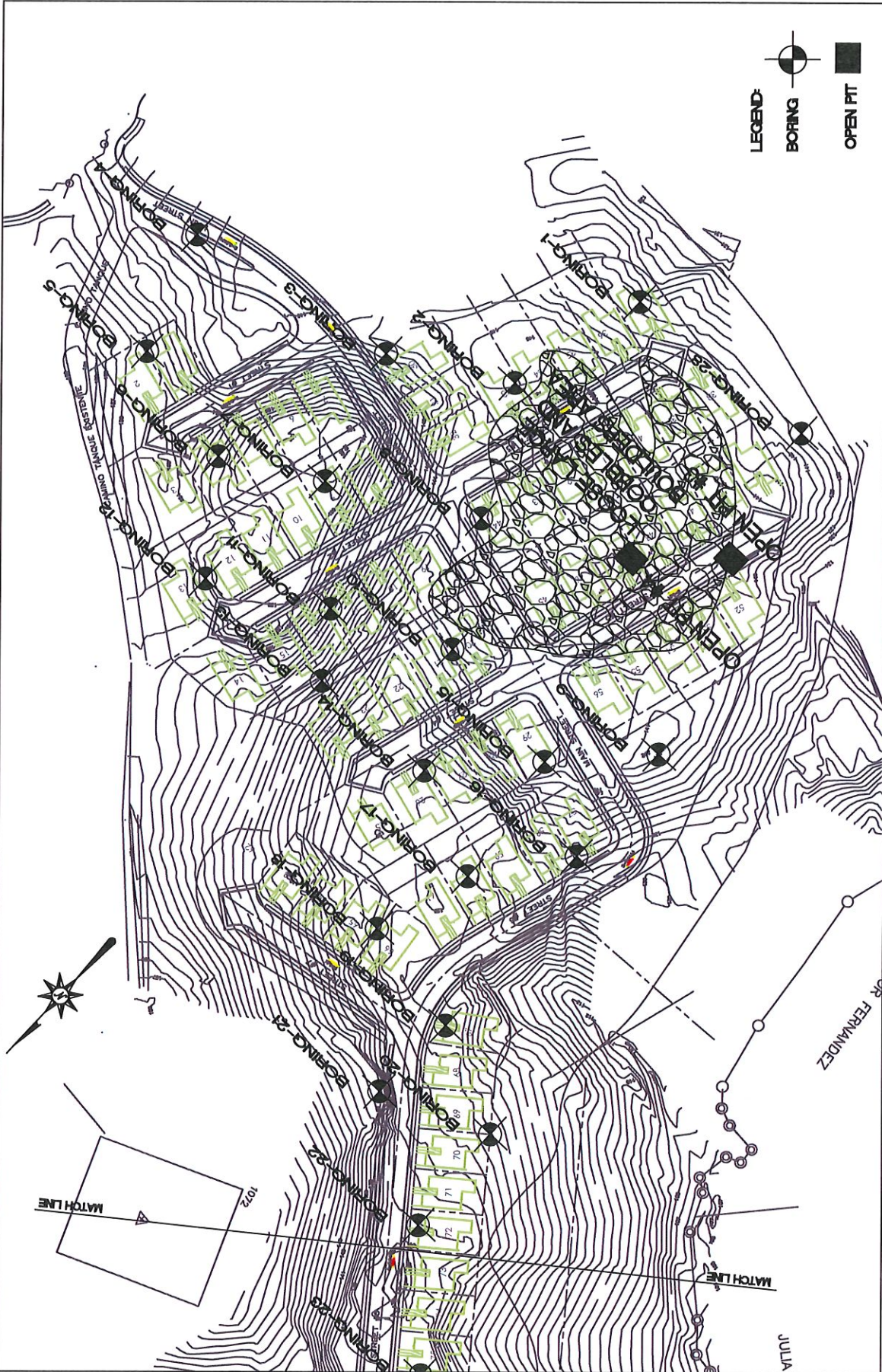
FROM US GEOLOGICAL SURVEY GEOLOGICAL MAP (I-479)



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 SOIL/GEOLOGICAL ENGINEERING LABORATORIES
 P.O. BOX 260370, San Juan, Puerto Rico 00926-2622 / (787) 281-0686

SITE PLAN
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 SAN JUAN, PUERTO RICO.
 REFERENCE NO. DA/18D3803

1a

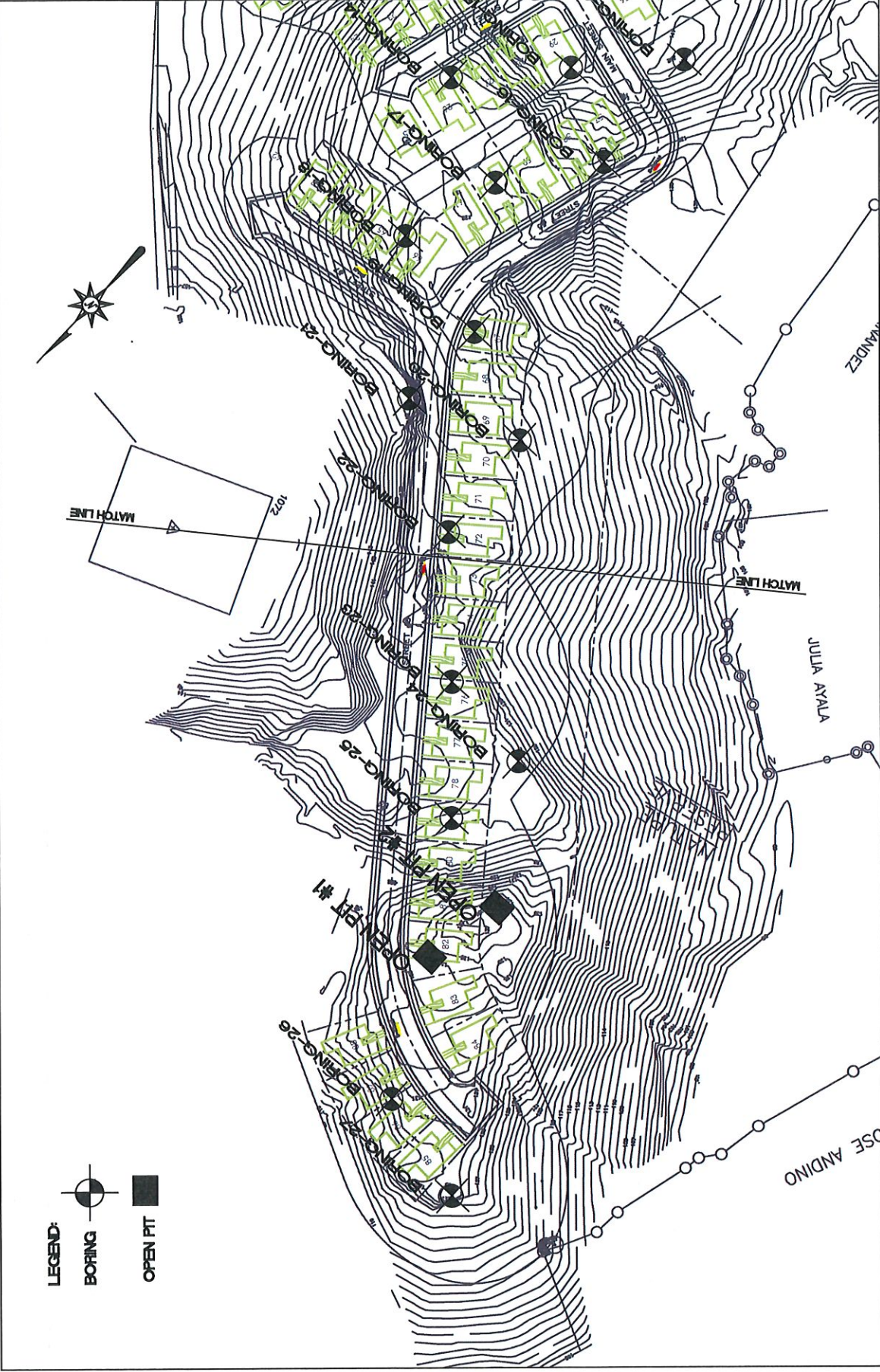


GEOTECHNICAL EXPLORATORY FOR THE
 PROPOSED ENSUENO RESIDENTIAL DEVELOPMENT
 AT CUPEY WARD OF THE MUNICIPALITY OF
 SAN JUAN, PUERTO RICO.
 REFERENCE NO. DA/18D3803

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NOTE:
 THIS DRAWING WAS PROVIDED BY THE CLIENT AND
 WAS USED TO ILLUSTRATE THE APPROXIMATE
 BORING LOCATION.
 SCALE:
 NOT TO SCALE - REDUCE FROM ORIGINAL





LEGEND:



BORING



OPEN PIT

2A

GEOTECHNICAL EXPLORATORY FOR THE
 PROPOSED ENSUEÑO RESIDENTIAL DEVELOPMENT
 AT CUPEY WARD OF THE MUNICIPALITY OF
 SAN JUAN, PUERTO RICO.
 REFERENCE NO. DA/18D3803

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 P. O. BOX 260370, San Juan, Puerto Rico 00926-2622 / (787) 281-0686



NOTE:
 THIS DRAWING WAS PROVIDED BY THE CLIENT AND
 WAS USED TO ILLUSTRATE THE APPROXIMATE
 BORING LOCATION.

SCALE:
 NOT TO SCALE - REDUCE FROM ORIGINAL

NATURAL DRAINAGE PATTERN



LEGEND:
NATURAL DRAINAGE PATTERN

NOTE:
THIS DRAWING WAS PROVIDED BY THE CLIENT AND WAS USED TO ILLUSTRATE THE GENERAL NATURAL DRAINAGE PATTERN OF THE TRACT OF LAND.
NOT TO SCALE



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PROPOSED ENSUENO RESIDENTIAL DEVELOPMENT
AT CUPEY WARD OF THE MUNICIPALITY OF
SAN JUAN, PUERTO RICO.
REFERENCE NO. DA/18D3803

APPENDIX (1)

Boring Logs

FIELD EXPLORATION DESCRIPTION

The boring locations were marked by a representative of Despiou Associates Corp. using a measuring wheel and referencing existing site features shown on the site plan provided to us. Boring elevation information was not provided. The locations of the borings should be considered accurate only to the degree implied by the means and methods used to define them.

The soil test borings were performed by a trailer-mounted CME 55 power drilling rig utilizing mud rotary drilling procedures to advance the boreholes. The drilling tools were removed from the borehole and representative soil samples were obtained continuously in the upper 10 ft. and thereafter, at approximately 5 ft. intervals using split-barrel sampling procedures. All soil samples were taken with a 2"-O.D. split barrel sampler following the standard penetration test procedures in ASTM D-1586. The split-barrel sampler was driven into the ground with a 140-pound hammer falling 30" inches. After seating the sampler six inches at the bottom of the borehole to penetrate any loose cuttings, the sampler is driven an additional 12 inches. The number of blows required to advance the sampling spoon the last 12 inches is recorded as the standard penetration resistance value (N-value). These N-values are indicated on the boring logs at the depths of occurrence.

The samples were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification. Information provided on the boring logs attached to this report includes soil descriptions, consistency evaluations, boring depths, sampling intervals, and groundwater conditions.

A field log of each boring was prepared by the drill crew. These logs included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. Final boring logs included with this report represent the engineer's interpretation of the field logs and include modifications based on laboratory observation and tests of the samples. Additional information provided on the boring logs attached to this report includes soil descriptions, consistency evaluations, boring depths, sampling intervals, and groundwater conditions.

ROUTINE LABORATORY TEST PROCEDURES

Routine laboratory testing was performed under the direction of a geotechnical engineer and included visual classification, moisture content, grain size analysis and Atterberg limits, as appropriate. The results of the special laboratory testing performed are shown on the borings logs and in Appendix C. Procedural standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment. The following routine laboratories were performed on secured samples among others.

Classification

Visual-manual procedures, in accordance with ASTM D-2488 & D-2487, were employed to identify the subsoils at the site. Soils are described as one of the following: boulders, gravel, sand, silt, clay, organic soils and peat. Differentiation between the coarser soils is made by visual appreciation of predominant grain size. Fine grained soils (silt, clay, organic soils and peat) are partly identified using plasticity or dilatancy characteristics and the dry strength of the soil instead of the grain size.

Moisture Contents

The moisture content was determined for all samples obtained, and it is expressed in percentage of the given ratio of the weight of water and a given soil mass to the dry solid particles in it. The procedure used were in accordance to ASTM Designation D-2216.

Atterberg Limits

Designations: D-423 an D-424 establish respectively the standards for the determination of the liquid and plastic limits of the collected clayey samples. They are expressed as water contents and define the boundaries of three states in terms of "limits" as follows: (a) "liquid limit", the boundary between the liquid and the plastic states, and (b) "plastic limit", the boundary between the plastic and semi-solid states.

Volume Changes

Swelling characteristics are obtained in order to permit the expeditious identification of foundation soils which could be potentially troublesome due to excessive volume changes as shrinkage and swelling. The ratio of sample volume to its dry volume is recorded while immerse in distilled water for a period of 24 hours.

Unconfined Compressive Strengths (q-u)

A measure of shear strength was obtained for all cohesive soils sampled, where possible. The shear strength was determined either using a calibrated penetrometer, the unconfined compressive strength tester or the spring.

Free Swell Tests

The free swell tests are made in accordance to the procedures of the US Bureau of Reclamation, which provide percent total volume change from dry to saturated conditions.

DESCRIPTIVE TERMINOLOGY CONSISTENCY OF COHESIVE SOILS AND RELATIVE DENSITY OF GRANULAR SOILS

To approximate the consistency of fine grained soils (soft, medium, stiff, very stiff, hard), a simple test is performed with the hand: a hard fine grain soil is difficult to indent with the thumbnail, a very stiff soil can be indented by the thumbnail, stiff soils are readily indented with the thumb, medium soils can be penetrated by moderate thumb pressure, soft soils are easily penetrated with the thumb, and soft soils run between the fingers when squeezed.

The consistency of cohesive soils has also been correlated to the results of the Standard Penetration Test, as shown below. The correlation, however, is greatly affected by the clay structures and factors as sensitivity.

TABLE 1 - DESCRIPTION OF SOIL DENSITY AND CONSISTENCY

COARSE GRAINED SOILS

Range of Standard Penetration Resistance (BPF)	Relative Density
0 - 4	Very loose
4 - 10	Loose
10 - 30	Medium
30 - 50	Dense
over 50	Very Dense

FINE GRAINED SOIL

Range of Standard Penetration Resistance (BPF)	Unconfined Compressive Strength (TSF)	Consistency
0 - 2	0 - 0.25	very soft
2 - 4	0.25 - 0.50	soft
4 - 8	0.50 - 1.00	medium
8 - 15	1.00 - 2.00	stiff
15 - 30	2.00 - 4.00	very stiff
over 30	over 4.00	hard

These are very approximate correlations which vary with, among other factors, overburden pressure, depth to water and grain size. These correlations are meaningless in soils with a significant amount of gravel or cobbles.



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-1
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256748.419
EASTING: 241544.126

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/13/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 145.1

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

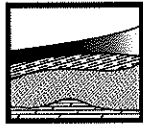
DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	4-5-6	11		Silty Clay (Fill) Yellowish brown, light gray, pale yellow mottled silty clay, trace sand, trace subangular gravel fragments, few roots (-).	88		28		Ground water was not found within the extent drilled.			
	SS	2	7-10-12	22		Silty Clay Yellowish brown, red, light olive gray, olive gray, red mottled, white mottled, reddish yellow, light olive brown silty clay, trace sand, trace subangular gravel fragments.	79		29	2.6				
5	SS	3	10-7-9	16			83		30	1.6				
	SS	4	7-9-10	19			100		31	1.8				
10	SS	5	6-13-13	26		Sandy Silt (R) Yellowish brown, light gray mottled, brown joints sandy silt, trace clay, trace cemented sands.	100		26					
15	SS	6	13-19-29	48		Sandy (WC) Yellowish brown, light gray mottled, brown joints sandy silt, trace weathered rock fragments.	100		20					
20	SS	7	49-75/5"	-		Note: Weathered rock was broken by sampling device into the described constituents.	100		13					
25														
30														
35														
40														

q_u (TSF) - UNCONFINED COMPRESSION STRENGTH
w_h = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-2
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256794.588
EASTING: 241555.499

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/13/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 145.26

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

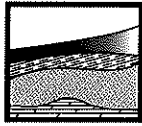
DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	2-24	6		Silty Clay (Fill) Dark brown, red and light gray silty clay, some sand, trace subangular gravel fragments, few roots (-).	-		26		Ground water was not found within the extent drilled.			
	SS	2	10-15-17	32		Sandy Silt Yellowish brown, light gray mottled, brown mottled sandy silt, trace clay, trace rock gravel fragments.	-		24			33.5	7.7	A-4 (2)/ML
5	SS	3	9-15-28	43		Sandy Silt (WC) Yellowish brown, light gray mottled, brown mottled sandy silt, trace clay, trace weathered rock fragments.	-		15					
	SS	4	23-39-75/5"	-		Sandy Silt (WC) Yellowish brown, light gray mottled, brown mottled sandy silt, trace clay, trace weathered rock fragments.	-		17					
	SS	5	65-75/3"	-		Sandy Silt (WC) Weathered rock into brown sandy silt, some weathered rock fragments.	-		12					
15	SS	6	62-71-75/3"	-		Note: Weathered rock was broken by sampling device into the described constituents.	-		6					
20						Note: Exposed large cobbles and boulders at ground surface.								
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-3
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256815,984
EASTING: 241592,022

PROJECT: Ensuefio Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/12/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 145.25

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: GME-55

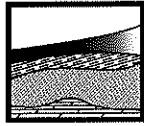
DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	3-4-5	9		Silty Clay Brown, red mottled, black mottled silty clay, trace sand, some subangular gravel fragments, few roots (-).	100		34		Ground water was not found within the extent drilled.			
	SS	2	7-12-12	24		Silty Clay	100		37	2.7		57.0	20.1	A-7-5 (24)/MH
	SS	3	7-9-14	23		Red, light olive brown, black mottled, olive yellow joints silty clay, trace sand.	100		36	2.7				
	SS	4	9-10-11	21			100		32	4.0				
	SS	5	9-14-18	32		Clayey Silt	100		15	3.6				
						Red, olive yellow and light gray clayey silt.								
	SS	6	4-6-8	14			100		43	1.6				
						Sandy Silt								
						Brown, yellow mottled clayey sandy silt.								
	SS	7	5-7-14	21			100		33	2.7				
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



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Soil / Geotechnical Engineering Laboratories

BORING NO.: B-4
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256829.239
EASTING: 241671.320

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/12/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 151

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (In.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

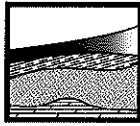
DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	2-2-5	7		Silty Clay (Fill) Red olive yellow, white mottled and black mottled silty clay, trace sand, trace subangular gravel fragments.	100		29		Ground water was not found within the extent drilled.			
	SS	2	6-8-10	18		Sandy Silty Clay (Fill) Light olive brown, white mottled, light gray, black mottled sandy silty clay, some subangular gravel fragments, many old roots.	63		28	1.8				
5	SS	3	4-3-5	8		Clayey Sandy Silt Light olive brown, brown mottled and red mottled clayey sandy silt.	83		30	1.3				
	SS	4	7-5-6	11		Sandy Silt (R) Brownish yellow, light gray, brown mottled sandy silt, trace weathered rock fragments.	100		30					
10	SS	5	6-9-23	32			100		30					
15	SS	6	18-20-45	65			100		17					
20	SS	7	25-31-50	81		Note: Weathered rock was broken by sampling device into the described constituents.	100		11					

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-5
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256867.541
EASTING: 241648.328

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/11/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 150

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 25

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

DRILLER: J. Alvarado

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	2-3-3	6		Clayey Sandy Silt Brownish yellow, light gray clayey sandy silt, trace subangular gravel fragments.	75		21		Ground water was not found within the extent drilled.			
	SS	2	19-12-13	25			100		13			30.0	7.1	A-4 (0)/SM
5	SS	3	49-49-75/3"	-		Sandy Silt (R) Brownish yellow, light gray mottled, brown mottled sandy silt, trace weathered rock fragments.	80		14					
	SS	4	48-51-75/3"	-			100		14					
10	SS	5	44-37-75/4"	-		Sandy Silt (WH) Weathered rock into yellowish brown, light gray mottled sandy silt, trace rock fragments.	100		11					
15	SS	6	44-75/2"	-			100		11					
20	SS	7	75/3"	-			100		14					
25	SS	8	75/3"	-		Note: Weathered rock was broken by sampling device into the described constituents.	100		10					
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-6
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256873.981
EASTING: 241606.907

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/12/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 149

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 35

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

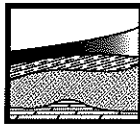
DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification	
0						Ground Surface									
	SS	1	3-3-6	9		Silty Clay (Fill) Brownish yellow, brown, yellow mottled silty clay, some sand, some subangular gravel fragments.	83		29		Ground water was not found within the extent drilled				
	SS	2	6-8-11	19		Clayey Sandy Silt Light brown, white mottled, reddish brown, yellow mottled and olive brown clayey sandy silt, trace subangular gravel fragments, few roots (-).	100		25						
5	SS	3	8-8-9	17			100		30						
	SS	4	8-9-6	15			100		16	3.2			44.4	16.2	A-7-6 (7)/ML
10	SS	5	17-14-13	27		Sandy Silty Clay (Fill) Olive brown, dark gray, white mottled and very dark greenish gray sandy silty clay, trace subangular gravel fragments.	100		21	3.2					
15	SS	6	4-3-4	7			100		30	0.3					
20	SS	7	3-3-5	8		Silty Clay (Fill) Olive gray, light gray and dark gray silty clay, some sand, some subangular gravel fragments.	72		27	0.7					
25	SS	8	4-4-6	10			50		32	0.7					
30	SS	9	3-4-7	11		Silty Clay Olive brown, bluish gray, red mottled silty clay, trace sand.	100		34	1.3					
35	SS	10	7-9-29	38		Clayey Sandy Silt Yellow, reddish yellow, brown mottled clayey sandy silt, trace weathered rock fragments.	100		18						
40															

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
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BORING NO.: B-7
SHEET: 1 of 2
LOCATION: San Juan/Cupey
NORTHING: 256855.721
EASTING: 241578.502

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/11/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 145

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 65

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

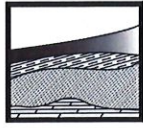
DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification	
0						Ground Surface									
	SS	1	2-2-2	4		Silty Clay (Fill) Dark brown, yellow mottled silty clay, trace sand, trace subangular gravel fragments.	33		22		Ground water was not found within the extent drilled.				
	SS	2	3-3-4	7		Clayey Sandy Silt (Fill)	29		12						
5	SS	3	5-3-5	8		Brown clayey sandy silt, some subangular gravel fragments, few roots (-).	92		19						
	SS	4	40-29-75/6"	52			46		13						
	SS	5	-	-			100		9						
10						Silty Clay (Fill)									
	SS	6	5-6-5	11		Dark gray, reddish yellow, dark greenish gray and light gray mottled silty clay, trace sand, trace subangular gravel fragments, few roots (-).	58		27						
15															
	SS	7	4-2-4	6			67		29						
20						Silty Clay (Fill)									
	SS	8	3-4-11	15		Dark greenish gray, light gray mottled, reddish yellow mottled silty clay, trace sand, trace subangular gravel fragments, few old roots.	75		35						
25															
	SS	9	4-7-8	15			100		28						
30															
	SS	10	5-5-8	13			100		32						
35						Silty Clay (Fill)									
						Dark greenish gray, yellowish red, red and olive yellow silty clay, trace sand, trace subangular gravel fragments, many old roots.									
40	SS	11	23-14-16	30			63		31						

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-7
SHEET: 2 of 2
LOCATION: San Juan/Cupey
NORTHING: 256855.721
EASTING: 241578.502

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/11/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 145

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 65

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

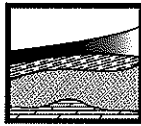
DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
						Continue - Silty Clay (Fill)								
45	SS	12	15-11-15	26		Same as above.	92		37			54.0	50.6	A-7-6 (39)/OH
50	SS	13	11-17-24	41			100		40					
55	SS	14	10-13-21	34		Clayey Sandy Silt	100		32					
60	SS	15	19-18-17	35		Red, light gray and olive yellow mottled clayey sandy silt.	100		35					
65	SS	16	9-10-15	25			100		40					
70														
75														
80														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

↓ DEPTH OF WATER BEFORE COMPLETION
↓ DEPTH OF WATER AFTER 24 HOURS



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BORING NO.: B-8
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256833.394
EASTING: 241533.670

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/28/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 144.5

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 10

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

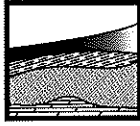
DRILLER: J. Bruno

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	3-15-15	30		Clayey Sandy Silt Brown, yellow and dark brown clayey sandy silt, some subangular gravel fragments, few roots.	100		21		Ground water was not found within the extent drilled.	31.1	11.1	A-6 (3)/SC
	SS	2	18-60/6"	-			100		26					
	SS	3	57-100/6"	-		Weathered Rock into Sandy Silt (WH-WC) Hard weathered rock into brown, yellow mottled sandy silt, some clay, trace weathered rock fragments.	50		11					
5	SS	4	100/4"	-			100		13					
	SS	5	100/3"	-		Note: Weathered rock was broken by sampling device into the described constituent.	100		11					
10														
15														
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-9
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256849.616
EASTING: 241440.512

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/27/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 139

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

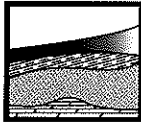
DRILLER: J. Bruno

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	10-41-60/6"	-		Sandy Silt (WH)	100		10		Ground water was not found within the extent drilled.			
	SS	2	70/4"	-		Strong brown, yellow mottled, yellowish brown sandy silt, trace clay, trace weathered rock fragments.	100		9					
	SS	3	43-57-60/3"	-			100		11					
5	SS	4	52-70/2"	-			100		12			29.4	6.9	A-2-4 (0)/SC-SM
	SS	5	60/6"	-		Sandy Silt (WC)	100		11					
10						Weathered rock into yellowish brown sandy silt, trace weathered rock fragments.								
	SS	6	100/4"	-		Note: Weathered rock was broken by sampling device into the described constituents.	100		8					
15														
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-10
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256870.101
EASTING: 241511.537

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/27/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 142

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

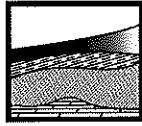
DRILLER: J. Bruno

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	2-3-5	8		Sandy Silty Clay Brownish yellow, light gray, brown mottled sandy silty clay, trace subangular gravel fragments.	100		24		Ground water was not found within the extent drilled.			
	SS	2	5-8-11	19			100		39	1.5				
	SS	3	12-16-23	39		Sandy Clayey Silt	100		36					
5	SS	4	30-41-47	88		Brownish yellow, light gray sandy clayey silt.	100		26					
	SS	5	12-23-31	54		Sandy Silt (R)	100		19					
10						Brownish yellow, yellow, black joints sandy silt, trace weathered rock fragments.								
15	SS	6	17-38-47	85		100		17						
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-11
SHEET: 1 of 2
LOCATION: San Juan/Cupey
NORTHING: 256891.077
EASTING: 241549.202

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/14/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 146.5

DEPTH OF HOLE (ft.): 60

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DRILL MACHINE: CME-55

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

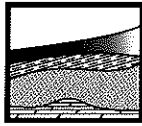
DRILLER: J. Alvarado

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification	
0						Ground Surface									
	SS	1	2-2-2	4	[Symbol]	Clayey Sandy Silt (Fill) Brown, yellowish brown and yellow mottled clayey sandy silt, trace weathered rock fragments.	83		27	Ground water was not found within the extent drilled.					
	SS	2	3-3-4	6			79		34						
5	SS	3	5-5-6	11	[Symbol]	Silty Clay (Fill) Yellowish brown, yellow mottled and dark olive gray silty clay, some sand, trace subangular gravel fragments.	88		43		1.6				
	SS	4	8-10-10	20			75		31		2.5				
	SS	5	8-7-7	14			67		32						
10					[Symbol]	Silty Clay (Fill) Dark olive gray and brownish yellow silty clay, some sand, some sugangular gravel fragments, many old roots.									
	SS	6	2-2-3	5			83		23						
	SS	7	2-2-4	6			78		23						
20															
	SS	8	3-3-4	7			100		22		1.0	36.1	14.4	A-6 (2)/SM	
25					[Symbol]	Silty Clay (Fill) Yellowish brown and light olive gray mottled, some sand, some subangular gravel fragments.									
	SS	9	4-6-6	12			89		23	1.2					
	SS	10	3-3-11	14			100		25	2.5					
35					[Symbol]										
	SS	11	7-6-11	17			56		20	1.5					
40															

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-11
SHEET: 2 of 2
LOCATION: San Juan/Cupey
NORTHING: 256891.077
EASTING: 241549.202

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/14/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 146.5

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 60

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

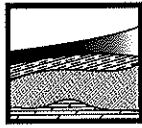
DRILLER: J. Alvarado

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
45	SS	12	7-9-11	-		Continue - Silty Clay (Fill) Same as above.	50		17	2.3				
50	SS	13	3-75/1"	-		Silty Clay (Old Top Soil) Dark gray and brownish yellow silty clay, trace sand, trace subangular gravel fragments, few old roots (-).	29		29	0.8				
55	SS	14	4-49-75/2"	-		Sandy Silt Light yellowish brown, brown joints sandy silt, some weathered rock fragments.	71		27	1.0				
60	SS	15	75/5"	-		Note: Large boulders and cobbles were found with the deep fill section.	100		17					

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-12
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256907.644
EASTING: 241584.839

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/11/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 147

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 30

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

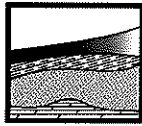
DRILLER: J. Alvarado

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification	
0						Ground Surface									
	SS	1	5-7-8	15		Silty Clay Brown, light gray and yellow silty clay, some sand.	75		30		Ground water was not found within the extent drilled.				
	SS	2	16-20-26	46		Sandy Silt (R)	100		20						
5	SS	3	15-20-24	44		Brownish yellow, light gray, yellow mottled sandy silt, some clay, trace weathered rock fragments.	75		22						
	SS	4	29-32-75/4"	-		Sandy Silt (WH)	100		27				34.6	11.2	A-6 (1)/SC
10	SS	5	50-75/3"	-		Sandy Silt (WH)	78		11						
						Weathered rock into yellowish brown, yellow mottled sandy silt, trace weathered rock fragments.	100		10						
15	SS	6	38-75/4"	-		Weathered rock into yellowish brown, yellow mottled sandy silt, trace weathered rock fragments.	100		10						
20	SS	7	75/4"	-		Sandy Silt (WC)	100		9						
						Weathered rock into yellowish brown, light gray mottled sandy silt, trace weathered rock fragments.	100		9						
25	SS	8	75/2"	-		Weathered rock into yellowish brown, light gray mottled sandy silt, trace weathered rock fragments.	100		9						
						Note: Weathered rock was broken by sampling device into the described constituents.	100		9						
30	SS	9	75/3"	-		Note: Weathered rock was broken by sampling device into the described constituents.	100		9						
35															
40															

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-13
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256906.175
EASTING: 241535.406

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/22/19

CASING: 2-1/2" O.D.

SAMPLER: SS

GROUND ELEV.: 142.5

Hammer Weight (lb.): 300

Drop (in.): 30

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : 30

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: Mot. Cathead

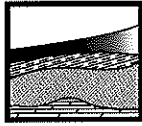
DRILLER: J. Bruno

DRILL METHOD: Wash Boring

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	4-2-3	5		Silty Clay (Fill) Yellowish brown and brownish yellow silty clay, some sand, some subangular gravel fragments, few roots.	100		17		Ground water was not found within the extent drilled.			
	SS	2	1-1-3	4			100		23	0.5				
	SS	3	4-5-5	10			100		20	0.8				
5	SS	4	4-5-6	11			100		30					
	SS	5	15-60/4"	-			100		32	2.4				
10														
	SS	6	60/2"	-		Note: Weathered rock was broken by sampling device into the described constituents.	0		-					
15														
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-14
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256906.104
EASTING: 241491.543

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/15/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 143

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

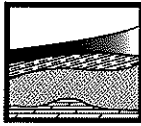
DRILLER: A. Ferrer

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	2-4-13	17		Sandy Silt	100		10		Ground water was not found within the extent drilled.			
	SS	2	20-20-14	34		Brown sandy silt, trace clay, some subangular gravel fragments.	100		6					
5	SS	3	10-10-12	22			100		10					
	SS	4	17-17-14	31		Clayey Sandy Silt Strong brown clayey sandy silt, some subangular gravel fragments.	100		14					
10	SS	5	9-9-12	21		Clayey Sandy Silt	100		14	2.7				
	SS	6	7-6-5	11		Light brownish gray and brownish yellow clayey sandy silt, some subangular gravel fragments.	100		18					
20	SS	7	6-12-22	34		Sandy Silt Grayish brown, brownish yellow, light gray, black mottled sandy silt, some clay, trace weathered rock fragments.	100		12	3.2				
						Note: Weathered rock was broken by sampling device into the described constituents.								
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-15
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256876.268
EASTING: 241465.623

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/28/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 140.4

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

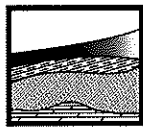
DRILLER: J. Bruno

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	4-7-7	14		Silty Clay Yellowish red, yellow mottled silty clay, some sand, trace subangular gravel fragments.	100		36		Ground water was not found within the extent drilled.			
	SS	2	10-12-16	28			100		29	2.2		39.8	12.8	A-6 (7)/ML
	SS	3	12-16-17	33		Sandy Clayey Silt Brownish yellow, yellow mottled sandy clayey silt.	100		24					
	SS	4	20-25-23	48		Sandy Silt	100		27					
	SS	5	12-12-24	36		Brownish yellow and yellow sandy silt, trace weathered rock fragments.	100		20					
	SS	6	20-20-21	41			100		17					
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-16
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256891.267
EASTING: 241437.222

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/25/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 133

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

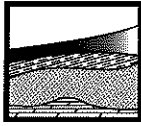
DRILLER: J. Bruno

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	2-6-11	17	[Symbol: Diagonal lines]	Silty Clay (Fill) Reddish yellow and light gray silty clay, few roots.	100		36		Ground water was not found within the extent drilled.			
	SS	2	10-13-12	25			100		31					
	SS	3	18-27-41	68		Sandy Silt	100		17					
5	SS	4	50-60/6"	-			67		20					
	SS	5	14-21-30	51		Yellow, brown mottled, white mottled and black mottled sandy silt.	100		15					
10														
	SS	6	21-33-27	60		Sandy Silt Dark yellowish brown sandy silt, trace weathered rock fragments.	100		15					
15														
	SS	7	70/6"	-		100		10						
20														
25														
30														
35														
40														

q_u (TSF) - UNCONFINED COMPRESSION STRENGTH
w_h = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-17
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256919.704
EASTING: 241458.536

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/15/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 139

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

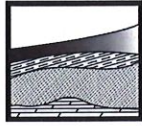
DRILLER: A. Ferrer

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	3-5-5	10		Sandy Silty Clay	100		16		Ground water was not found within the extent drilled.			
	SS	2	10-12-10	22		Brownish yellow, grayish brown, white mottled and reddish mottled yellow sandy silty clay, trace subangular gravel fragments.	100		23	2.5				
5	SS	3	9-9-8	17			100		13					
	SS	4	11-10-16	26		Sandy Silt Dark yellowish brown sandy silt, trace clay, some subangular gravel fragments.	100		11					
	SS	5	16-15-13	28			100		9					
10						Clayey Sandy Silt								
15	SS	6	14-12-12	24		Strong brown clayey sandy silt, some subangular gravel fragments.	100		13					
20	SS	7	7-6-10	16			100		18					
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-18
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256951.761
EASTING: 241468.157

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/15/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 134.6

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

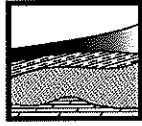
DRILLER: A. Ferrer

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	4-7-6	13	[Symbol: Dotted pattern with diagonal lines]	Sandy Silt (Loose) Brown, reddish yellow mottled sandy silt, some clay, some subangular gravel fragments.	100		13		Ground water was not found within the extent drilled.			
	SS	2	6-6-4	10			100		11					
5	SS	3	3-2-2	4		Sandy Silty Clay (Very Loose) Yellowish brown, light gray mottled, brown, brownish yellow and light gray sandy silty clay, some subangular gravel fragments.	100		23					
	SS	4	2-3-2	5			100		14	0.7				
10	SS	5	9-21-18	39		Weathered Rock Clayey Sandy Silt Brown, light gray and pale yellow clayey sandy silt, trace subangular gravel fragments.	100		17					
						Clayey Sandy Silt								
15	SS	6	75/5"	-		Weathered rock into brown, yellow, light olive brown, yellow mottled clayey sandy silt, trace subangular gravel fragments.	100		9					
20	SS	7	39-75/5"	-	Note: Weathered rock was broken by sampling device into the described constituents.	100		14						
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-20
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256963.436
EASTING: 241384.766

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/25/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 132

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

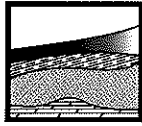
DRILLER: J. Bruno

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification	
0						Ground Surface									
	SS	1	10-24-31	55		Sandy Clayey Silt Brownish yellow and dark brown sandy clayey silt, trace weathered rock fragments, few roots.	100		33	— Ground water was not found within the extent drilled.					
	SS	2	42-26-26	52				100			18				
	SS	3	27-68/6"	-		Sandy Silt (R) Brownish yellow and yellow sandy silt, trace weathered rock fragments.	100		11			27.5	8.9	A-2-4 (0)/SC	
5	SS	4	75/4"	-		Sandy Silt (WC)	100		11						
	SS	5	75/4"	-		Weathered rock into dark yellowish brown and yellowish brown sandy silt, trace weathered rock fragments.	100		9						
10															
	SS	6	70/6"	-				100			9				
15						Sandy Silt (WH) Weathered rock into dark Yellowish brown sandy silt, trace weathered rock fragments.									
	SS	7	100/3"	-	Note: Weathered rock was broken by sampling device into the described constituents.	100		8							
20															
25															
30															
35															
40															

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-21
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256989.894
EASTING: 241435.857

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/15/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 133

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

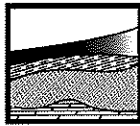
DRILLER: A. Ferrer

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	1-9-6	15		Sandy Silt Grayish brown, yellow sandy silt, some clay, some subangular gravel fragments.	-		12		Ground water was not found within the extent drilled.			
	SS	2	42-75/4"	-		Sandy Silt (R) Light yellowish brown sandy silt, some weathered rock fragments.	-		9					
5	SS	3	75/2"	-			-		6					
	SS	4	52-75/4"	-		Sandy Silt (WH-WC)	-		6					
10	SS	5	75/3"	-		Weathered rock into yellowish sandy silt, some weathered rock fragments.	-		8					
15	SS	6	75/2"	-		Note: Weathered rock was broken by sampling device into the described constituents.	-		6				21.8	2.9
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-22
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 257010.294
EASTING: 241387.399

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/15/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 131.5

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 9

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

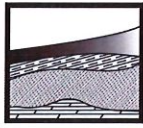
DRILLER: A. Ferrer

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	2-2-3	5		Clayey Sandy Silt Brown clayey sandy silt, trace subangular gravel fragments, few roots.	-		19		Ground water was not found within the extent drilled.			
	SS	2	61-75/3"	-		Sandy Silt (WC)	-		9					
5	SS	3	75/5"	-		Very hard weathered rock into brown, yellow mottled sandy silt, some weathered rock fragments.	-		7					
	SS	4	75/2"	-		Note: Very hard weathered rock was broken by sampling device into the described constituents.	-		2			25.0	6.9	A-2-4 (0)/SC-SM
10														
15														
20														
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

▼ DEPTH OF WATER BEFORE COMPLETION
▼ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-23
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 257046.318
EASTING: 241360.133

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 03/01/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 129

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 30

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

DRILLER: J. Bruno

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	3-15-25	40		Sandy Silt	100		15		Ground water was not found within the extent drilled.			
	SS	2	60/6"	-		Grayish brown and brown sandy silty clay, some subangular gravel fragments.	100		14					
	SS	3	5-4-13	17			72		17	1.2				
5	SS	4	25-41-40	81			83		18	1.3		30.0	11.0	A-2-6 (0)/SC
	SS	5	6-5-8	13		Sandy Silty Clay (Loose to Medium)	56		24	1.0				
10						Grayish brown, olive gray, yellow, light gray mottled sandy silty clay, some subangular gravel fragments.								
	SS	6	3-5-7	12			67		23	1.0				
15						Silty Clay (Loose to Medium)								
	SS	7	3-5-8	13			100		26	0.6				
20					Brown, gray, yellow mottled, dark olive gray, yellowish red mottled silty clay, trace sand, trace subangular gravel fragments (saturated).									
	SS	8	5-6-7	13		56		26	0.7					
25														
	SS	9	8-14-60/3"	-		Sandy Silt	100		17					
30						Strong brown, yellow mottled sandy silt, trace clay, trace weathered rock fragments.								
						Note: Weathered rock was broken by sampling device into the described constituents.								
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-24
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 257022.744
EASTING: 241335.541

PROJECT: Ensuefio Residential Development

REFERENCE NO.: DA/18D3803

DATE: 03/01/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 121

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 30

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

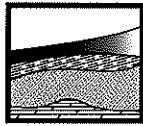
DRILLER: J. Bruno

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	7-7.4	11		Silty Clay (Fill)	100		20		Ground water was not found within the extent drilled.			
	SS	2	7-12.5	17			100		22	1.7				
	SS	3	5-4.4	8		Brown, grayish brown, yellow mottled silty clay, some sand, some subangular gravel fragments.	44		17	1.2				
5	SS	4	4-4-5	9			44		26	1.2				
	SS	5	4-3-4	7		Silty Clay (Fill)	72		29	0.5				
10						Olive gray, brown mottled silty clay, some sand, some subangular gravel fragments with wood debris.								
	SS	6	2-7.4	11			100		24	0.6		37.3	14.7	A-6 (4)/SC
15						Silty Clay .Sandy Silt (R)								
						Dark olive gray silty clay and dark grayish brown sandy silt, trace weathered rock fragments.								
	SS	7	3-8-60	68		78		26						
20					Sandy Silt (WH)									
					Weathered rock into pale brown, yellow mottled sandy silt, trace weathered rock fragments.									
	SS	8	23-60/6"	-		100		15						
25					Note: Weathered rock was broken by sampling device into the described constituents.									
	SS	9	75/4"	-		100		13						
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-25
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 257078.394
EASTING: 241330.707

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/15/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 127

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

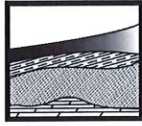
DRILLER: A. Ferrer

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification	
0						Ground Surface									
	SS	1	8-9-7	16		Sandy Silt Brown sandy silt, some clay, some subangular gravel fragments.	83		9		Ground water was not found within the extent drilled.				
	SS	2	10-9-11	20				38		11					
5	SS	3	4-4-3	7		Sandy Silty Clay Brown, light gray sandy silty clay, some subangular gravel fragments.	75		15	1.7					
	SS	4	4-6-7	13				83		15		2.3	28.1	12.4	A-6 (1)/SC
10	SS	5	7-8-32	40		Sandy Silt Brown, yellow mottled sandy silt, some clay, trace weathered rock fragments.	92		8						
	SS	6	75/1"	-		No Recovery (Possible Boulder)	0		-						
15															
20															
25															
30															
35															
40															

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-26
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 257157.565
EASTING: 241283.969

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 03/06/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 127

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 25

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

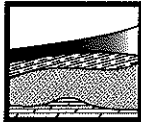
DRILLER: J. Bruno

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	5-3-6	9		Sandy Silty Clay Brown, reddish yellow sandy silty clay, some subangular gravel fragments.	100		17	Ground water was not found within the extent drilled.				
	SS	2	8-9-9	18			83		14					
	SS	3	6-5-7	12		Clayey Sandy Silt Brown, light gray mottled, reddish yellow mottled clayey sandy silt, trace subangular gravel fragments.	39		15		26.3	8.5	A-2-4 (0)/SC	
	SS	4	9-10-8	18			56		12					
	SS	5	20-30-50	80			100		13					
	SS	6	60/4"	-		Sandy Silt (WC)	100		6					
	SS	7	60/3"	-		Weathered rock into brown, strong brown, yellow mottled sandy silt, trace weathered rock fragments.	100		12					
	SS	8	75/2"	-		Note: Weathered rock was broken by sampling device into the described constituents.	100		11					

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
Wn = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-27
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 257167.191
EASTING: 241248.569

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 03/06/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 128.5

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 20

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-45

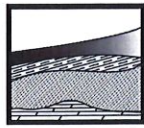
DRILLER: J. Bruno

DRILL METHOD: 3-3/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification
0						Ground Surface								
	SS	1	8-6-6	12		Clayey Sandy Silt	67		16		Ground water was not found within the extent drilled.			
	SS	2	8-8-8	16		Brown and yellow mottled clayey sandy silt, some subangular gravel fragments.	78		19					
	SS	3	6-11-6	17			56		13			31.6	11.3	A-6 (2)/SC
5	SS	4	7-10-11	21		Clayey Sandy Silt Grayish brown, yellowish red, yellow mottled clayey sandy silt, some subangular gravel fragments.	61		13					
	SS	5	38-60/5"	-		Sandy Silt (WH)	100		11					
10						Weathered rock into brown, yellow mottled sandy silt, trace weathered rock fragments.								
15	SS	6	17-55-60/4"	-		Note: Weathered rock was broken by sampling device into the described constituents.	100		14					
20	SS	7	44-60/3"	-			100		12					
25														
30														
35														
40														

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS



DESPIAU ASSOCIATES CORP.
Soil / Geotechnical Engineering Laboratories

BORING NO.: B-28
SHEET: 1 of 1
LOCATION: San Juan/Cupey
NORTHING: 256743.7311
EASTING: 241477.615

PROJECT: Ensueño Residential Development

REFERENCE NO.: DA/18D3803

DATE: 02/13/19

CASING: N/A

SAMPLER: SS

GROUND ELEV.: 139

Hammer Weight (lb.): N/A

Drop (in.): N/A

Hammer Weight (lb.): 140

Drop (in.): 30

DEPTH OF HOLE (ft.): 15

Type : N/A

Size : N/A

Type: Split Spoon Sampler

Size: 1-3/8" I.D.

DRILL MACHINE: CME-55

DRILLER: A. Ferrer

DRILL METHOD: 5-5/8" Auger

Depth (ft)	Sampler	Sample No.	Blows/6 in	SPT N-Value	Symbol	Material Description	% Recovery	R.Q.D.	Water Content (%)	qu	Water Level	Liquid Limit	Plasticity Index	Soil Classification	
0						Ground Surface									
	SS	1	1-2-3	5		Silty Clay Brown and brownish yellow silty clay, trace sand, trace subangular gravel fragments, few roots.	83		36		Ground water was not found within the extent drilled.				
	SS	2	35-49-72	121		Sandy Silt (WC) Yellowish brown, yellow mottled, brown mottled sandy silt, trace clay, trace weathered rock fragments.	100		11						
5	SS	3	40-60-75/4"	-		Sandy Silt (WH) Weathered rock into strong brown, yellowish brown, light gray, brown mottled sandy silt, trace clay, some weathered rock fragments.	94		12						
	SS	4	75/5"	-		Sandy Silt (WH) Weathered rock into strong brown, yellowish brown, light gray, brown mottled sandy silt, trace clay, some weathered rock fragments.	60		9				29.7	6.6	A-4 (0)/SC-SM
10	SS	5	32-33-75/5"	-		Sandy Silt (WH) Weathered rock into strong brown, yellowish brown, light gray, brown mottled sandy silt, trace clay, some weathered rock fragments.	100		14						
15	SS	6	75/1"	-		Note: Weathered rock was broken by sampling device into the described constituents.	100		9						
20															
25															
30															
35															
40															

qu (TSF) - UNCONFINED COMPRESSION STRENGTH
wh = WEIGHT OF HAMMER TO DRIVE SAMPLE
W_n = NATURAL WATER CONTENT IN PERCENT OF DRY WEIGHT

∇ DEPTH OF WATER BEFORE COMPLETION
∇ DEPTH OF WATER AFTER 24 HOURS

APPENDIX (2)
Earthwork Specifications

GENERAL EARTHWORK AND GRADING SPECIFICATIONS FOR PREPARATION EXCAVATION, FILLING AND GRADING

1.0 General

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested

include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications,

the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation

In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality,

such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined, and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture

content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557). At the time of compaction, the material in each layer of fill shall have moisture content within 2% of optimum moisture content for compaction, as determined by ASTM D-1557 for determining the moisture-density relationship of the fill material

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 95 % percent of maximum dry density (ASTM Test Method D1557).

For sectors within non-load-bearing areas shall be uniformly compacted to at least 90% of the modified Proctor Maximum Density for each lift, unless otherwise required in the geotechnical report. Any lift, or portion thereof, which is not compacted in accordance with the specifications, shall be compacted or removed and replaced to the satisfaction of the Geotechnical Engineer. The degree of compaction of each lift shall be checked by the Engineer and each successive lift shall not be placed or compacted until the previous lift is inspected, tested and approved by the Engineer.

Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity. It is the responsibility of the Contractor to select, furnish and properly maintain equipment which will compact the fill uniformly to the required density, however, the Contractor's selection of equipment is subject to approval by the Engineer. No fill shall be placed until approved compaction equipment is on the site and working condition.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 95 % percent of maximum density per ASTM Test Method D1557.

Existing ground slope surfaces, to be covered by the fill shall be scarified into steps or benches and the fill progresses in order to provide a bond and avoid any shear failure along the fill/natural ground interface. Slopes shall not be steeper than 2.0 to 1.0 (Horizontal to Vertical units). Drainage other than storm water falling directly to slope shall not be permitted to cut across slope areas. Protection of slopes by planting of grass and shrubs shall be performed immediately upon their completion. Special sloping requirement may be established in the geotechnical report.

4.5 Erosion Protection

Embankment fills with slopes steeper than 1.5H: 1.0V (Horizontal: Vertical) shall be protected from runoff and erosion by an appropriate type of vegetation cover. This may be performed by hydro mulching in such a way as to cover the soil as fast as possible until evidence of "catch" or uniform stand to prevent erosion is achieved, at which time final acceptance will be given. The Contractor shall properly water, mow, and otherwise maintain all treated areas until final acceptance.

4.6 Benching

When embankment is to be placed and compacted on hillsides or when new embankment is to be compacted against an existing embankment, or when an embankment is built one-half (1/2) width at a time, the slopes that are steeper than four to one (4:1) when measured at right angles shall be continuously benched over these areas as the work is brought up in layers. Benching shall be of enough width to permit operation of placing and compacting equipment. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts.

4.7 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.8 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.9 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 Drain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

At all times the Contractor shall maintain and operate proper and adequate surface and subsurface drainage methods to the satisfaction of the Engineer in order to keep the construction site dry.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill

All bedding and backfill of utility trenches shall be performed in accordance with the applicable provisions of Standard Specifications of Public Works Construction. The bedding shall be placed to 1 foot over the top of the conduit and densified. Backfill shall be placed and densified to a minimum of 90 percent of relative compaction from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

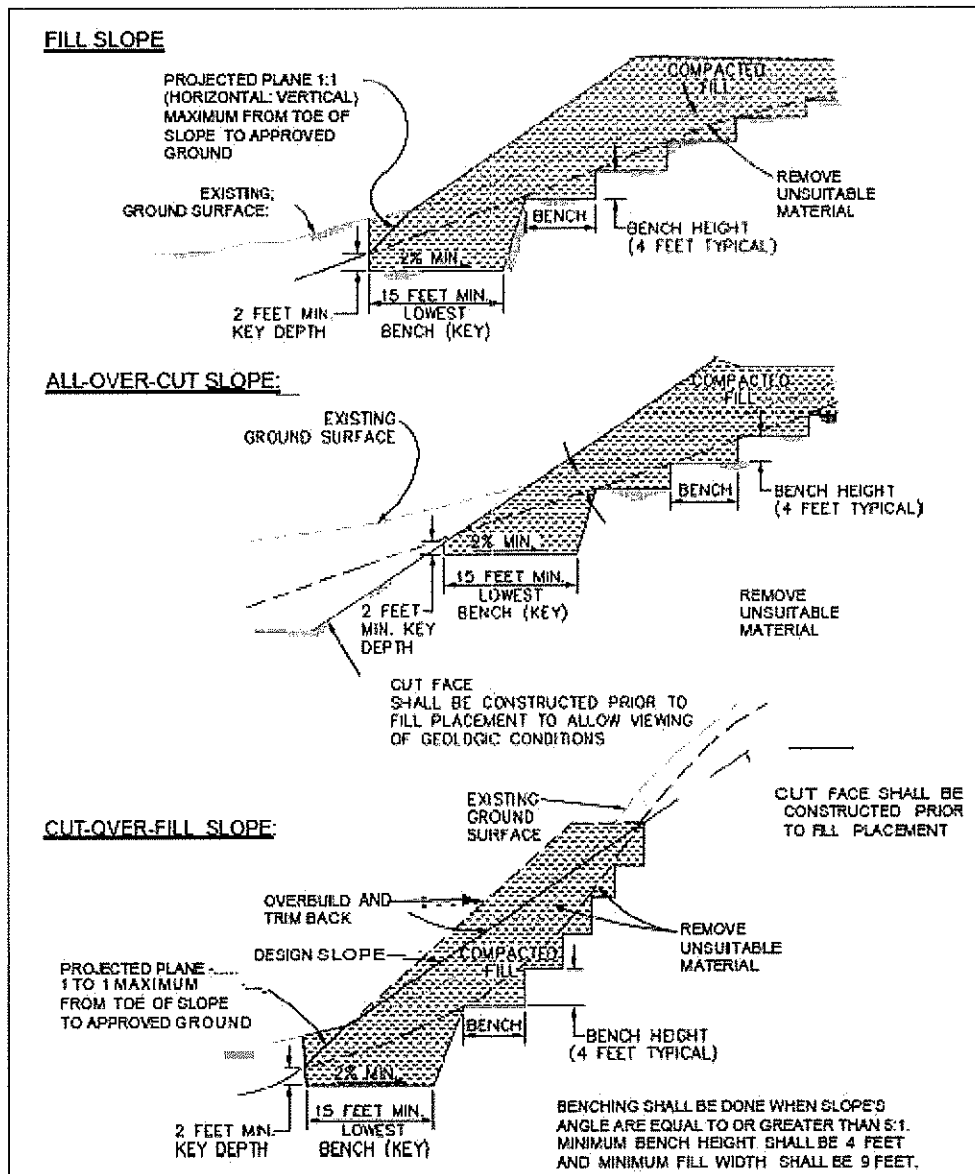
7.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

7.4 Observation and Testing

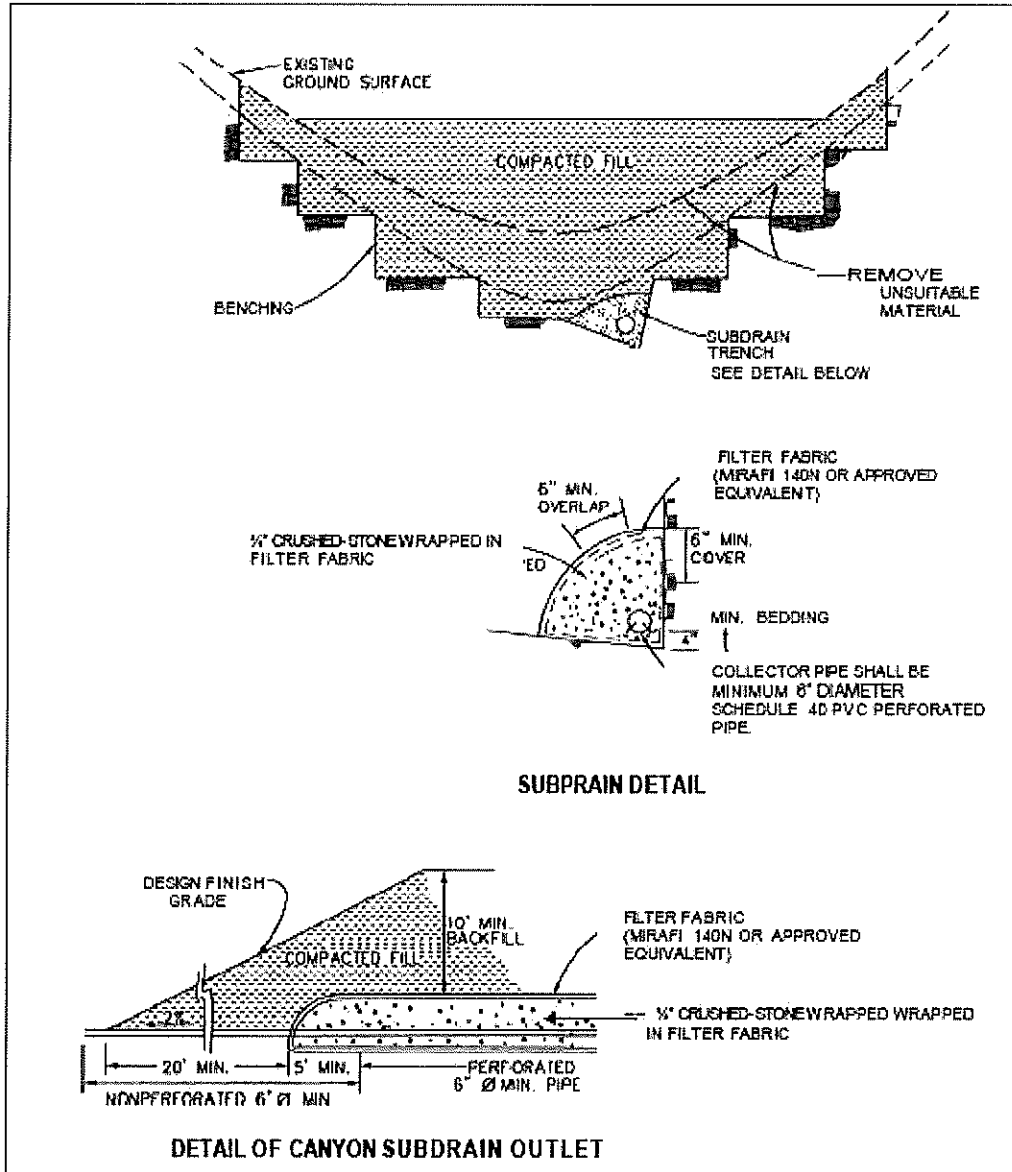
The densification of the bedding around the conduits shall be observed by the Geotechnical Consultant.

KEYING AND BENCHING



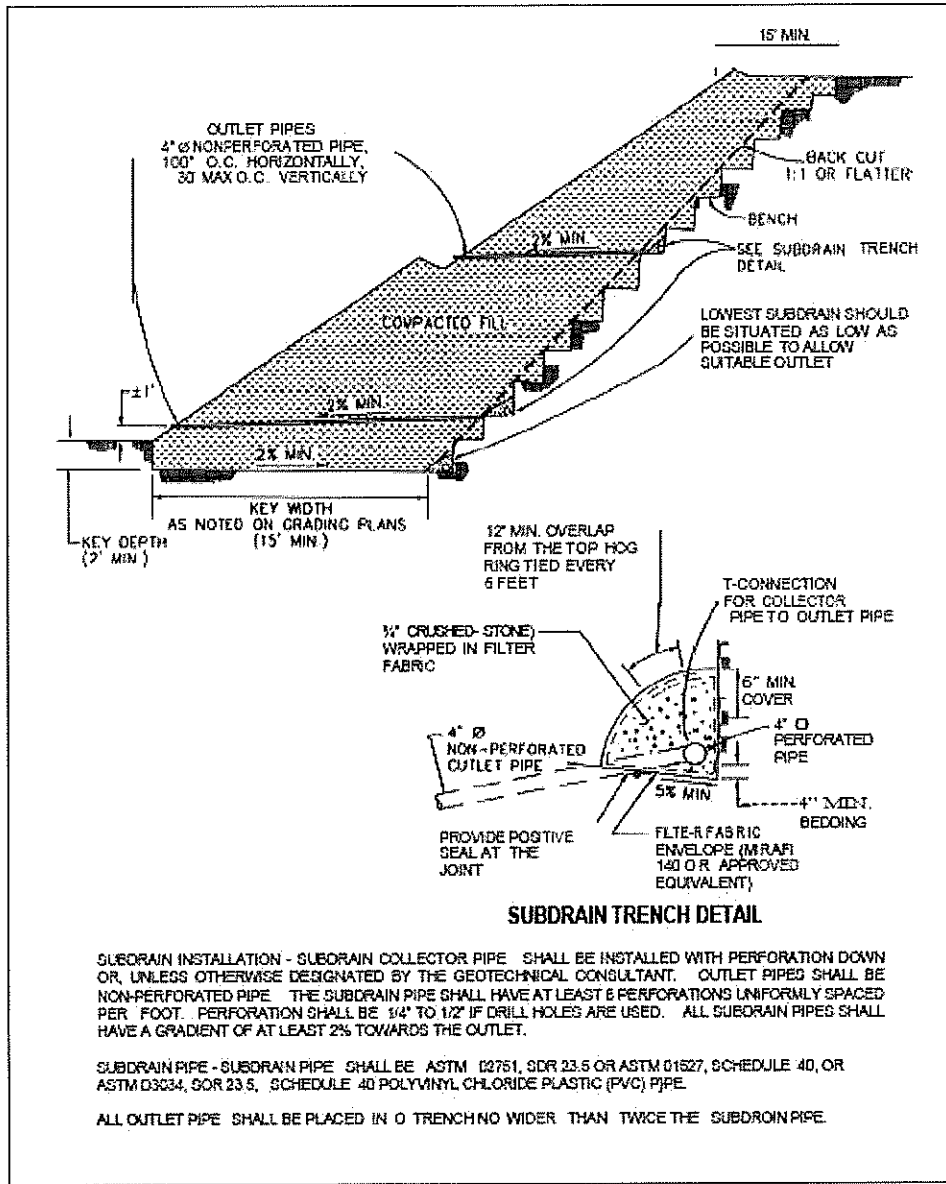
GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAIL "A"

SUBDRAINS



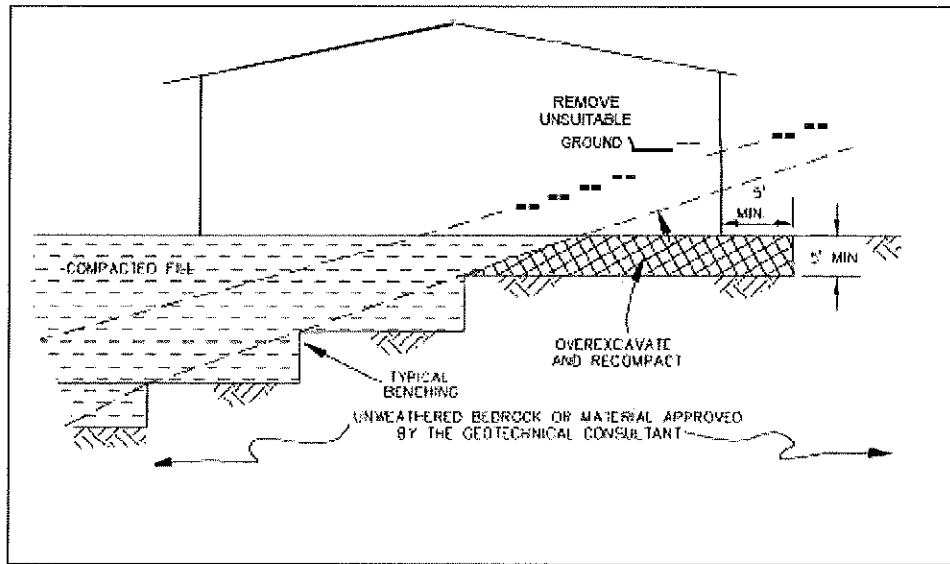
GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAIL "B"

BUTTRESS OR REPLACEMENT FILL SUBDRAINS



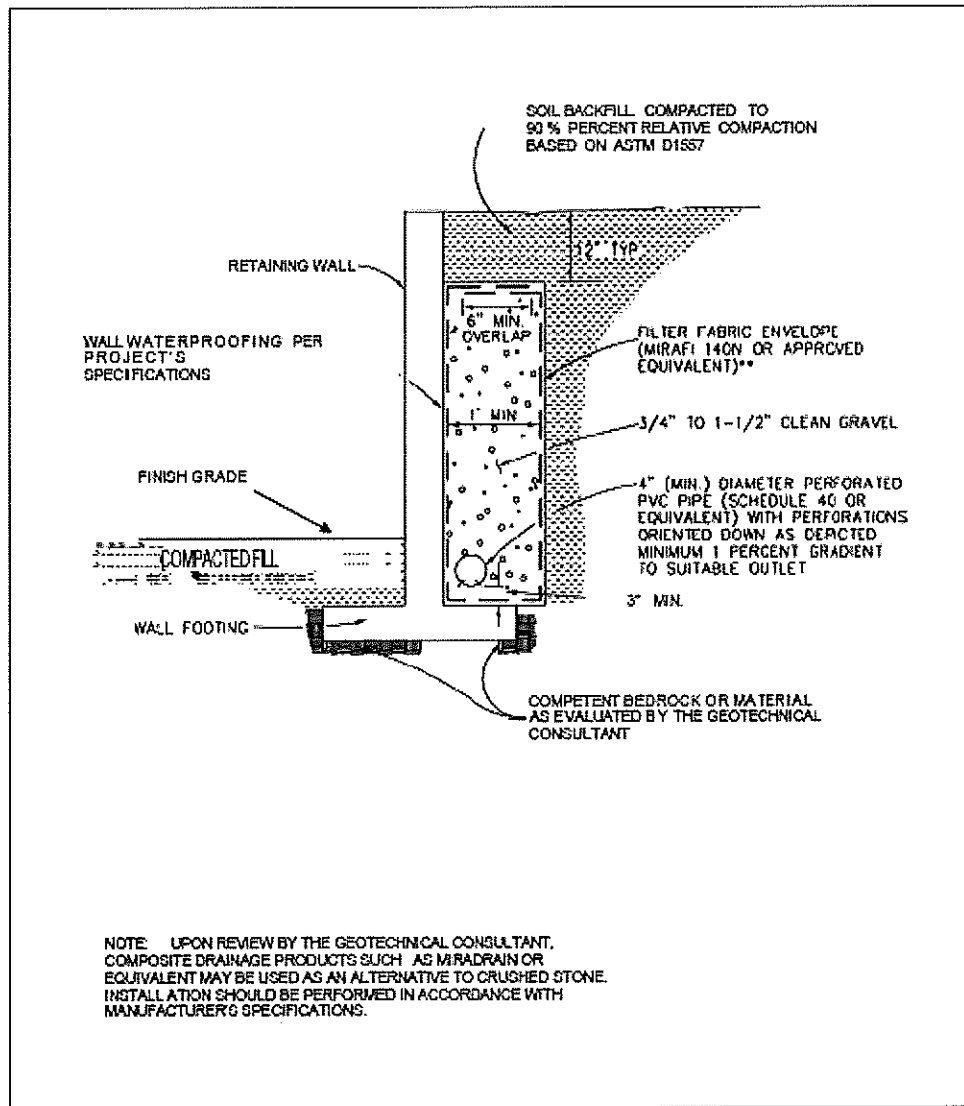
GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAIL "C"

CUT-FILL TRANSITION FILL OVEREXCAVATION



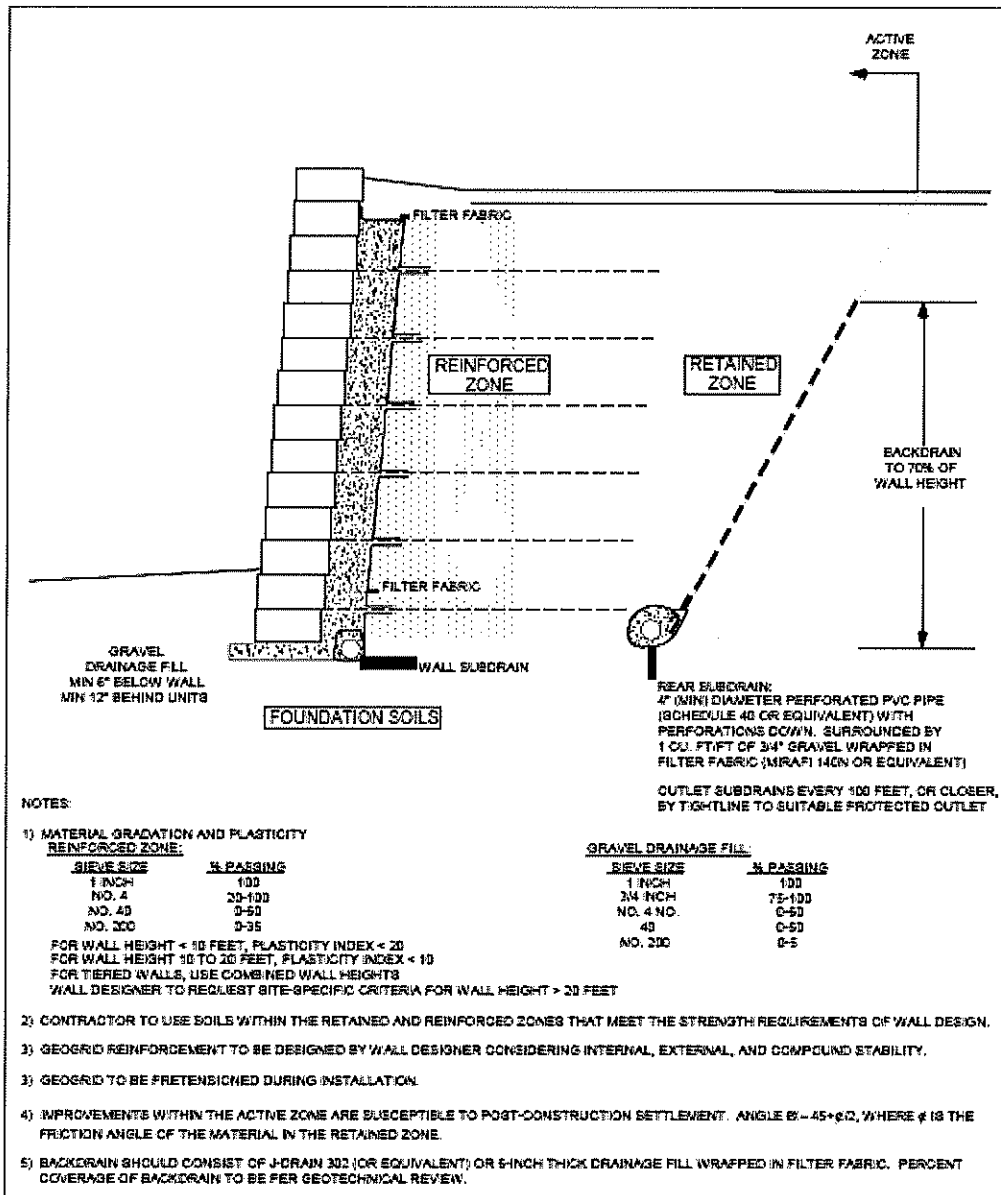
GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAIL "D"

RETAINING WALL DRAINAGE



GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAIL "E"

SEGMENTAL RETAINING WALL



GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAIL "F"

APPENDIX (3)
Special Laboratory Tests

SPECIAL LABORATORY TESTS

As may be required for the geotechnical evaluations, a series of non-routine or special tests were performed to assist in the engineering analyses. The special tests performed are included in this Appendix. The special tests performed for the present project are included in the following list of laboratory tests, among other usually performed. A brief description of some of the special laboratory tests are:

Vane Shear Test

A pocket vane shear test device was used to perform various vane shear tests on samples (i.e. SPT and Undisturbed Shelby Tubes). The results of the vane shear tests are given in tons/ft.²

Mechanical Analysis of Soils

The process of separating the soil into particle-size groups, including both the sieve analysis of the coarser and fine grains was performed. Standard U.S. sieves were used to establish the Percent Finer by Weight of the samples. The percentage of fines was used to classify the samples in both the standard AASHTO and Unified Classification Systems.

Liquid & Plastic Limit Tests

The moisture content above which a soil readily becomes a liquid upon stirring is called the liquid limit. The standard Arthur Casagrande Device was used for such determination, following ASTM Specifications D423.

The plastic limit is defined as the minimum moisture content at which the soil mixture acts as a plastic solid. The standard ASTM specification D424 was followed in performing the tests.

From the above test results the plasticity index can be determined. It is defined as the numerical difference between the liquid limit and the plastic limit of the soil. In the data sheets the test results given in the corresponding column are the Liquid Limit (LL) and the Plasticity Index (P.I.).

Unit Weight Determination of Soils

The wet unit weight of the samples was obtained by mass per unit volume from the sample, as secured from the field. Dry unit weight determinations were obtained and are specifically mentioned in some of the tables and graphs of the geotechnical report.

Unconfined Compressive Strength Tests (Stress-Strain)

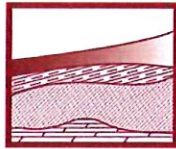
Basically, the unconfined compressive strength test is performed by axially loading a cylinder without lateral confinement. In wet fine-grained soils, the tests are performed quickly. Different from the routine Q_u tests, in the special unconfined compressive tests, which are performed in the triaxial compression chamber, the stress-strain at predetermined intervals are recorded. In the routine tests on SPT samples, the unconfined compression tests are performed by the spring tester. Sometimes, the pocket penetrometer device is used to determine the unconfined compressive strength. The test type is indicated in the corresponding column of test results.

Modified Proctor Compaction Tests

The laboratory compaction test consists for determining the maximum dry density and optimum moisture content of representative samples of in-situ or potential borrow fill sources. The Modified Proctor Density Tests are performed in accordance to the ASTM Designation D 1557, Standard Method for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures using a 10-lb. Rammer and 18-in. drop.

Free Swell Tests

The free swell tests are made in accordance to the procedures of the US Bureau of Reclamation, which provide percent total volume change from dry to a saturated condition.



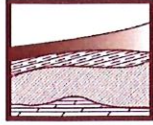
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PROJECT:	Ensueño Residential Development at Cupey Ward of the Municipality of San Juan, PR.
JOB NO.:	DA/18D3803
DATE:	March 13, 2019

**SUMMARY OF SOIL CLASSIFICATION TESTS
AND FREE SWELL TESTS**

Boring No.	Sample Depth	Liquid Limit %	Plasticity Index %	% Passing US Sieve			Classification		% Free Swell	Clay Type Class.	
				10	40	200	AASHTO	USCS		AC*	CEAC**
2	2'-10'	33.5%	7.7%	91.5	76.8	52.7	A-4 (2)	ML	15%	0.15	0.21
3	2'-4'	57.0%	20.1%	89.9	94.6	91.1	A-7-5 (24)	MH	30%	0.22	0.37
5	2'-10'	30.0%	7.1%	87.4	63.1	36.9	A-4 (0)	SM	15%	0.19	0.27
6	4'-6'	44.4%	16.2%	92.0	74.5	56.9	A-7-6 (7)	ML	25%	0.28	0.46
7	40'-45'	54.0%	50.6%	97.6	89.3	81.3	A-7-6 (39)	OH	30%	0.62	1.21
8	1'-6"-3'	31.1%	11.1%	96.2	75.2	49.6	A-6 (3)	SC	15%	0.22	0.34
9	3'-7'	29.4%	6.9%	82.3	54.5	29.3	A-2-4 (0)	SC-SM	10%	0.24	0.33
11	20'-25'	36.1%	14.4%	78.6	57.0	41.6	A-6 (2)	SM	20%	0.35	0.54
12	2'-8'	34.6%	11.2%	84.5	61.5	41.0	A-6 (1)	SC	20%	0.27	0.41
15	1'-6"-3'	39.8%	12.8%	96.6	82.5	63.4	A-6 (7)	ML	20%	0.2	0.31
19	2'-8'	31.9%	12.2%	86.6	63.0	43.8	A-6 (2)	SC	20%	0.28	0.43
20	3'-5'	27.5%	8.9%	83.9	56.6	31.7	A-2-4 (0)	SC	10%	0.28	0.41
21	2'-15'	21.8%	2.9%	79.0	54.9	31.0	A-2-4 (0)	SM	10%	0.09	0.11
22	2'-8'	25.0%	6.9%	73.3	43.0	22.3	A-2-4 (0)	SC-SM	10%	0.31	0.43
23	3'-7'	30.0%	11.0%	71.6	44.7	29.4	A-2-6 (0)	SC	15%	0.37	0.56
24	10'-15'	37.3%	14.7%	88.3	67.7	49.2	A-6 (14)	SC	20%	0.3	0.47
25	4'-8'	28.1%	12.4%	78.0	52.2	38.3	A-6 (1)	SC	20%	0.32	0.5
26	3'-6"-5'	26.3%	8.5%	71.5	36.9	16.7	A-2-4 (0)	SC	10%	0.51	0.73
27	3'-5'	31.6%	11.3%	78.9	57.3	42.9	A-6 (2)	SC	20%	0.26	0.4
28	2'-6'	29.7%	6.6%	90.1	69.6	43.1	A-4 (0)	SC-SM	15%	0.15	0.21

Activity Ratio
in Exchange Activity



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PROJECT: Ensueño Residential Development at Cupey Ward of the Municipality of San Juan, PR.

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ORGANIC CONTENT DETERMINATION

Boring No.	Sample Depth	Description	Organic Content %
4	4'-6'	Ligth olive brown, ligth gray, black mottled sandy silty clay, trace subangular gravel fragments, many old roots.	13.39
6	2'-4'	Ligth brown, white mottled clayey sandy silt, trace subangular gravel fragments, few roots minus.	1.29
7	2'-10'	Brown clayey sandy silt, some subangular gravel fragments, few roots minus.	1.05
7	18'-6"-20'	Dark gray, ligth gray mottled silty clay, trace sand, trace subangular gravel fragments, few roots minus.	1.05
7	33'-6"-35'	Dark greenish gray, ligth gray mottled, reddish yellow mottled silty clay, trace sand, trace SAGF, few old roots.	7.84
7	38'-6"-40'	Dark greenish gray & yellowish red silty clay, trace sand, trace subangular gravel fragments, many old roots.	11.39
7	43'-6"-45'	Dark greenish gray & yellowish red silty clay, trace sand, trace subangular gravel fragments, many old roots.	10.9
11	15'-25'	Dark olive gray & brownish yellow silty clay, some sand, some subangular gravel fragments, many old roots.	6.67
11	50'-55'	Dark gray & brownish yellow silty clay, trace sand, trace subangular gravel fragments, few old roots minus.	2.06
24	10'-15'	Olive gray, brown mottled silty clay, some sand, some subangular gravel fragments with debris (Wood).	7.55

Remarks:

